

## SAN BERNARDINO COUNTY INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

### PROJECT LABEL:

**APN:** Portions of 0572-231-02 and 0572-271-33  
**Applicant:** Dalton Trucking, Inc.  
**Community:** Mesquite Lake  
  
**Location:** 5 miles south of Sandy Valley, Nevada, northeast of the Clark Mountains within the dry lakebed of Mesquite Lake  
**Project No:** AP20120002  
**Staff:** Ernie Perea, Contract Planner  
  
**Rep:** Lilburn Corporation  
**Proposal:** Reclamation Plan for surface mining of gypsum (gypsite) on a 160 acres and a mill site on 10 acres.

**USGS Quad:** Mesquite Lake  
**T, R, Section:** T18N R13E Sec. 5 W  $\frac{1}{2}$  E  $\frac{1}{2}$

**Thomas Bros:** Pg. 330 Grid: L-4

**Planning Area:** Mesquite Lake  
**OLUD:** Resource Conservation (RC)

**Overlays:** None

### PROJECT CONTACT INFORMATION:

**Lead agency:** County of San Bernardino  
Land Use Services Department - Advance Planning Division  
385 N. Arrowhead Avenue  
San Bernardino, CA 92415-0184

**Contact person:** Ernie Perea, Contract Planner  
**Phone No:** (951) 214-2739      **Fax No:** (909) 387-3223

**E-mail:** ernestperea@ymail.com

**Project Sponsor:** Dalton Trucking, Inc.  
13560 Whittram Ave.  
Fontana, CA 92335

### PROJECT BACKGROUND:

Dalton Trucking, Inc was approved by the Bureau of Land Management (BLM) to conduct a small surface mining operation to recover gypsum (gypsite) from the surface of Mesquite Dry Lake on a 160 acre site. The BLM in their Decision Record and Environmental Assessment approved a Plan of Operations (POO) for the site on August 13, 2010. A subsequent revision was submitted (August 2011) to include the use of a 2-parcel 10 acre Mill Site. The Mill Site will allow material to be stockpiled from the Mesquite Lake Gypsum Mine. The POO per the revised operation to include the Mill Site was adopted on January 30, 2012.

Dalton submitted a Reclamation Plan for the 170 acres to the County in February 2012 which is the subject of this Initial Study Checklist and as described in the Project Description which follows.

### PROJECT DESCRIPTION:

The proposed mine site, which consists of 170 total acres, is located in Mesquite Valley, California, approximately five miles south of the town of Sandy Valley, Nevada. The gypsum occurs at the

---

surface as windblown gypsum sand and as a bedded evaporate deposit at depth. The gypsum sand contains some silt and clay impurities but is pure enough to be used as an agricultural soil additive without the need for any chemical beneficiation.

The operator would confine the surface disturbance area to a maximum of 170 acres in W½ E ½ of Section 5, T. 18 N., R. 13 E., as shown on the Exhibit 1 - Regional Map. The operator would access the site by existing roads and approximately 2500 feet of new road, with a maximum width of twelve feet, from the existing county road to the site. The lake bed surface is flat and little if any preparation would be required for the "construction" of the new road segment. Other road work would consist of routine occasional maintenance during the life of the operation and would be confined to within the existing disturbed roadway. Removal of wind blown gypsum sand drifts are the primary source of the need for occasional maintenance.

Some areas of road widening not to exceed 20 feet in overall width would be necessary in selected areas on the roads that are located on Mesquite Dry Lake playa, to allow safe passage of vehicles from two directions. These selected areas would be confined to pull-off areas at strategic places and would not exceed 50 feet in length. The access route and pull-off areas would be identical to the approved Kummerfeld sites as shown on Exhibit 2. Gypsite or interburden waste rock would be applied to some portions of the existing roads to suppress dust and repair or prevent rutting.

Information obtained from previous drilling has shown that the deposit, at shallow depths, is minable to a depth of approximately five (5) feet from the surface.

The operator would scrape the gypsum from the surface using a medium-sized dozer (e.g., Caterpillar D7 or D8) or front end loader. A front end loader would be used to move the gypsite to a crusher and screening assembly. The gypsite would be crushed as necessary and screen into three sizes. The sized material would be stockpiled adjacent to the loading site as depicted on Exhibit 2. A diesel engine powered conveyor belt loader measuring approximately fifty feet in length and fifteen feet in height would be used to top load semi trailer bulk haulage trucks. These haulage trucks would transport the bulk product to market via the proposed access routes.

Operations would begin as soon as possible. Initial operations would consist of one, eight to ten hour shift per day, six days per week, with a crew of three or four persons. The anticipated production rate would be approximately 325 tons per day (80,000 to 100,000 tons per year), assuming a weight of 1.9 tons per cubic yards, this would equate to approximately 50,000 cubic yards per year. Mining would be conducted year round January through December.

Maximum mine depth would be five feet, however, additional data could increase this depth and if so would be accomplished with submission and approval of a plan modification to BLM. There is little defined soil development at the surface and the surface is considered useable product so no topsoil stockpiling would be conducted. With depth the deposit is expected to become harder and more consolidated. When the more consolidated parts of the deposit are encountered at depth, a caterpillar mounted ripper would be used to loosen the bedded gypsum. Blasting or other uses of explosives are not planned.

Equipment on site would consist of a medium-sized dozer, front end loader, scales, screener, conveyor belts, haul trucks, semi trailer bulk trucks, pickup fuel truck, diesel fuel tank, company or



---

personal support vehicles, self contained portable toilet(s), water tank, small office and break room mobile trailer, and occasional pickup mounted auger drill rig. No onsite residency would be permitted and refuse and human wastes would be regularly disposed of in appropriate offsite, permitted facilities (landfill, wastewater hauler).

The 170 acre site, if mined to an average depth of three feet, would provide product for a period of approximately fifteen years of operation at anticipated levels of production (50,000 cubic yards per year) under this plan of operations. Operations exceeding five years in duration would require periodic review of this plan by BLM.

Pit walls would not exceed a 2:1 (vertical to horizontal) slope while the operation is active and would be reduced to a 1:2 (vertical to horizontal) slope during periods of temporary non-operation and final closure. The amount of interburden within the deposit has not been determined. Thin beds of interburden waste would be stockpiled within the 160 acre site for return and spreading within the pit area upon closure. Thick beds of interburden waste rock would define mine depth since its removal would be uneconomic. During periods of temporary inactivity or final closure, all equipment and refuse would be removed from the site.

As mining progresses, the pit slopes may be up to 5 feet in height with slopes ranging less steep than 5H:1V. The project boundary's perimeter slopes are planned to be reclaimed concurrently to an overall slope gradient of 5H:1V during operations to meet reclamation performance standards as stated in Article 9, Reclamation Standards §3704(d) in 14 CCR. Phased reclamation will take place on an annual basis. Prior to mining, the top 6 inches of material will be scraped from the area to be mined into small perimeter berms. The area mined would average approximately 6 acres per year if maximum production is realized. Upon completion of mining in this area, the site would be scarified and the surface material graded into place. The surface material used to create the elevated stockpile area will be re-graded into place. Revegetation would be conducted and the area flagged off to avoid further disturbance.

Final reclamation will be undertaken upon completion of mining operations. Any remaining slopes will be reduced to 5H:1V and compacted areas scarified to a depth of one foot during final contouring and prior to revegetation of mine areas (refer to Sheet 1). Any waste material followed by salvaged surface material will be spread evenly within the pit area and revegetation conducted. The reclaimed end use will be open space and wildlife habitat.

Reclamation Plan requires the implementation of revegetation activities as mining phases are completed at Mesquite Dry Lake and at the operation mill site. Baseline data was collected at both sites and success criteria was calculated. Based on the results of the baseline surveys, successful revegetation of the mill site would be achieved at 6.5% cover, density of 12 shrubs per 100m<sup>2</sup> plot, and 1 shrub species per 100m<sup>2</sup> plot. Successful revegetation of the lakebed would be achieved at 2.0% cover, a density of 1 shrub per 100m<sup>2</sup> plot, and 1 shrub species per 100m<sup>2</sup> plot. Due to the unique site conditions at the mine site that include lack of top soil, frequent winds, and annual flooding, it is recommended that optimal conditions for revegetation be created on portions of the site. Revegetation of the lakebed would be limited by the availability of salvage material for the creation of aeolian sand dunes that mimic the surrounding undisturbed lakebed. The purpose of the dunes is to increase the potential for plant establishment and survivorship. Annual assessments of the

---

reclamation area will be conducted by a qualified botanist to determine the success of the revegetation effort until said criteria are achieved.

As part of this revegetation program, the following two methods will be used for revegetation:

1. Broadcast Seeding - Commercially available seeds of local native species will provide the broadcast seed mix. Revegetation recommendations as follows:

*Mill Site*

Site preparation for revegetation at the mill site area should rip compacted soil surfaces and create textured rough soil surfaces with shallow rills and furrows to create optimal conditions for revegetation. The soil mix should include shadescale, iodine bush, inkblight, and honey mesquite.

*Dry Lakebed*

Site preparation of the dry lakebed will require the creation of undulating aeolian dunes that mimic those of the surrounding undisturbed lakebed for revegetation. Due to the harsh environmental conditions, conventional scarifying of soils prior to seeding is not recommended. In order to improve the potential for revegetation it is suggested that enhanced revegetation areas be created in the form of undulating aeolian dunes utilizing salvage material as available. It is anticipated that these dunes will be more resilient to withstand the flooding and wind conditions and will therefore increase the potential for plant establishment and survivorship. Revegetation activities should be conducted with a seed mix comprised of shadescale and iodinebush seeds.

2. Transplanting – The approved POO requires the salvaging of all cacti and yuccas from the project area. The project site does not have any cacti or yucca. Prior to disturbance of any areas, any cactus and yuccas which meet the County's criteria for native plant protection, will be identified and removed by a qualified botanist or arborist and transplanted immediately adjacent onsite.

Revegetation shall be done in accordance with the Revegetation Plan and guidelines supplied by the BLM botanist upon notification by the operator that reclamation is to be initiated. Revegetation will commence upon completion of mining in phased mining areas. Note that during operations, areas where mining has been completed to the 5-foot depth will be flagged off for avoidance, scarified, covered with stockpiled surface material, and revegetated. Only locally occurring native seeds and salvaged cacti and yucca tolerant to existing soil and rainfall conditions will be used.

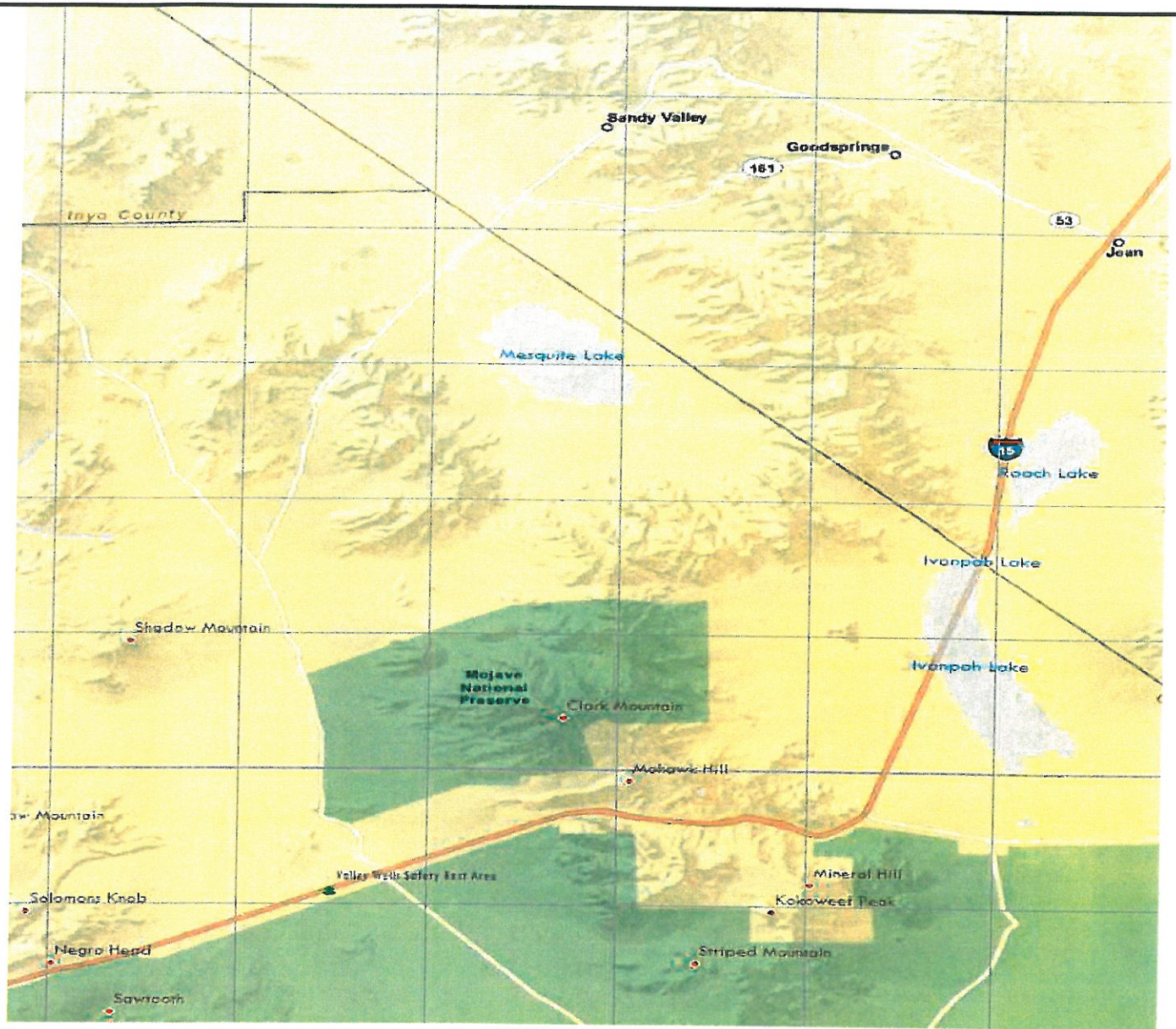
Revegetation efforts will be annually monitored after seeding and planting of the revegetated areas and will be summarized annually as part of the overall monitoring program. Monitoring will continue as required by the BLM or for a minimum of five years after completion of mining. Due to the extreme climate, soil conditions, and existing sparse vegetation, standard success criteria based on plant densities may not be representative. Baseline plant transects will be conducted and the revegetated areas will be compared to the baseline data.

---

Equipment and any portable structures will be removed from the project site. No permanent structures are planned for the site. Any remaining refuse will be disposed of at an appropriate disposal site.

Upon reclamation, the site will appear as a shallow 5-foot deep vegetated depression with 5H:1V side slopes. With time, it is likely that the depression will refill due to water and wind erosion. Any stockpiles of marketable material will be removed and overburden will be spread within the pit.



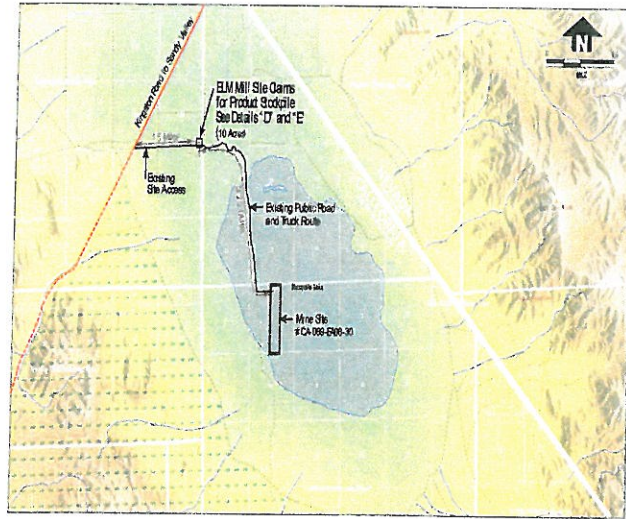


**Mesquite Lake  
Gypsum Mine**

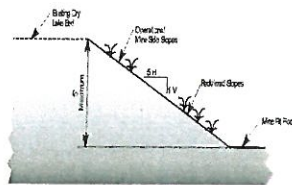
**Regional Location Map**

**Exhibit 1**

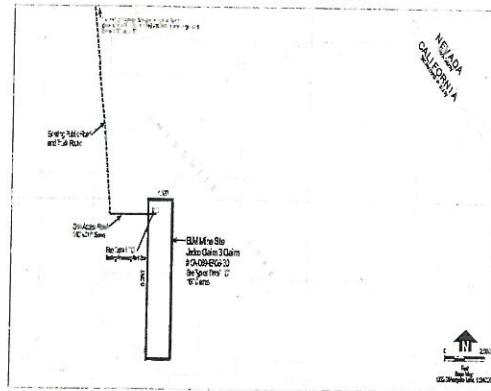




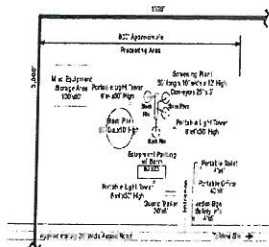
LOCATION OF OPERATIONS



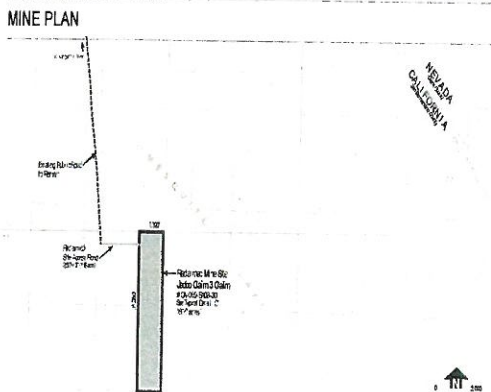
DETAIL "A"  
Typical Mine Slope



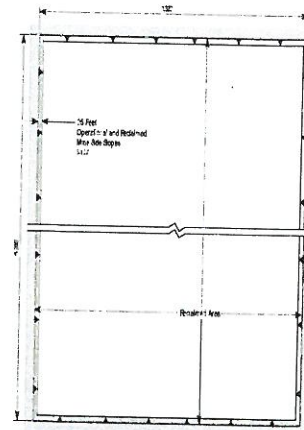
MINE PLAN



DETAIL "C"  
Processing Plant



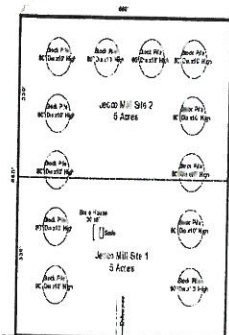
RECLAMATION PLAN



DETAIL "B"  
Typical Mine Pit



DETAIL "D"  
BLM MII Site Cams Location



DETAIL "E"  
BLM MII Site Cams for Product Storage (typical)



Mesquite Lake Mine  
County of San Bernardino, California

---

**ENVIRONMENTAL/EXISTING SITE CONDITIONS:**

AREA	EXISTING LAND USE	OFFICIAL LAND USE DISTRICT
Site	Open Space	RC
North	Open Space	RC
South	Open Space	RC
East	Open Space	RC
West	Open Space	RC

**Surrounding Land Use**

The area surrounding the site is undisturbed and remains in a natural state. Activities occurring within the immediate area include recreational off-road vehicle travel and commercial livestock grazing. The site as well as the surrounding area are within the Resource Conservation (RC) Official Land Use District and are primarily used for grazing activities. The area is within a grazing allotment and burro Herd Management Area. The Mesquite Lake Area of Critical Environmental Concern begins in the foothills surrounding the lakebed approximately 3,500 feet southwesterly at its closest point to the site. The BLM property within the area is identified within the California Desert Conservation Area Plan as being a Multiple Use Class L (Limited Use) Area. Class L areas are designed to protect sensitive, natural, scenic, ecological, and cultural resources. Public lands designated as Class L are managed to provide for generally lower-intensity, controlled multiple-use of resources, while ensuring that sensitive values are not significantly diminished.

**Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

- Mojave Desert Air Quality Management District (MDAQMD): Permit to Construct and Operate a Crushing/Screening Plant.
- Bureau of Land Management (BLM): Approved POO, Refer to Appendix A and B of the Reclamation Plan

---

## **EVALUATION FORMAT**

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant	No Impact
-----------------------------------	---	-----------------------	-----------

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact:** Therefore, no impacts are identified or anticipated and no mitigation measures are required.
2. **Less than Significant Impact:** Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated:** Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures)
4. **Potentially Significant Impact:** Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (Listing the impacts requiring analysis within the EIR).



---

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils                    |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use / Planning      | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |

### DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:


- ☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

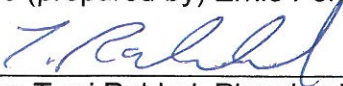
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- ☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
Signature (prepared by) Ernie Perea, Contract Planner

  
Signature: Terri Rahhal, Planning Manager

9-13-12  
Date

9-13-12  
Date



---

## **APPENDICES:**

- A. Decision of Record and Environmental Assessment – Mesquite Lake Gypsum Mine, Bureau of Land Management, CA-690-EA08-30, August 13, 2010, Revised August 2011.
- B. Decision of Record and Environmental Assessment – Mesquite Lake Gypsum Mine, Bureau of Land Management, CA-D090-2001-0029, January 1, 2012.

**I. AESTHETICS - Would the project**

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

---

**SUBSTANTIATION:** (Check ☐ if project is located within the view-shed of any Scenic Route listed in the General Plan):

---

- a) **No Impact.** According to The San Bernardino County General Plan the project site is not within a scenic vista. The Project Site is located approximately ten miles northwest of Interstate 15 (I-15). Interstate 15 is part of the California Freeway and Expressway System and it is eligible for designation as a state highway within the State Scenic Highway System; however Caltrans has not done so. Therefore, no impact is anticipated
- b) **No Impact.** According to The San Bernardino County General Plan the project site is not within a scenic vista. Additionally, I-15 is not a designated scenic route. Therefore, no impact is anticipated
- c) **Less Than Significant Impact.** The project site is not located within a scenic vista or along a scenic highway. The proposed use is an allowable use within the Resources Conservation Land Use Zoning District. Therefore, less than significant impact is anticipated.
- d) **No Impact.** The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No new light sources are proposed and therefore no impacts are anticipated.

**II. AGRICULTURE AND FORESTRY RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**SUBSTANTIATION:** (Check ☐ if project is located in the Important Farmlands Overlay):

- 
- a) **No Impact.** The California Resources Agency defines Prime Farmland, Unique Farmland, or Farmland of Statewide Importance for San Bernardino County as farmlands which include dryland grains of wheat, barley, oats, and dryland pasture. The Project Site does not meet these characteristics.

The Mesquite Lake Gypsum Mine operations are located in northern San Bernardino County approximately five miles south of Sandy Valley, Nevada, northeast of the Clark Mountains within the dry lakebed of Mesquite Lake, within an area that contains soils that are unsuitable for agriculture. The Proposed Project would not Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no impact is anticipated.

- b) **No Impact.** The Project Site is not designated as agricultural land use or Williamson Act land. The Proposed Project would not conflict with current zoning. No impact is anticipated.
- c) **No Impact.** The Proposed Project does not conflict with, nor could it result in the rezoning of forest or timber land. The proposed use is consistent with the zoning district. Therefore, no impact is anticipated.
- d) **No Impact.** No portion of the project site occurs within forest land, and approval of the proposed project would not result in the loss of forest land or convert forest land to a non-forest use. No impact is anticipated.
- e) **No Impact.** The Proposed Project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impacts are anticipated.



**III. AIR QUALITY** - Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION:** *(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):*

The Project Site is located in the Mojave Desert Air Basin (MDAB). The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project's emissions could pose a significant threat to air quality, the MDAQMD has published its Air Quality Rule Book. The air and dust emissions from the reclamation was evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

- a) **No Impact.** Reclamation of the site would involve the disturbance of approximately 170 acres over 15 years. The Proposed Project is an allowable use within the RC Land Use District. The project site is within the MDAB and under the jurisdiction of the MDAQMD. The MDAQMD is responsible for updating the Air Quality Management Plan (AQMP). The AQMP was developed for the primary purpose of controlling emissions to maintain all federal and state ambient air standards for the district. The project would not significantly increase local air emissions and therefore would not conflict with or obstruct implementation of the plan. Therefore, no impact is anticipated.

b) **Less Than Significant Impact:**

Reclamation will be undertaken upon completion of mining operations. Any remaining slopes will be reduced to 5H:1V and compacted areas scarified to a depth of one foot during final contouring and prior to revegetation of mine areas. Any waste material followed by salvaged surface material will be spread evenly within the pit area and revegetation conducted.

Revegetation efforts will occur in the disturbed areas including the graded pit floor, shallow 5-foot side slopes, and the site's 1,400-foot access road. The goal of the revegetation program is to reduce potential erosion and visual impacts, and to reestablish native habitat compatible with that currently found surrounding the site. Native species, which currently occur on or adjacent to the site, will be utilized to maintain the genetic balance of the area and to avoid the introduction of foreign species. Approximately 10-percent of the disturbed area will be reseeded as to represent surrounding adjacent vegetation with the gypsum dry lake bed.

The disturbed area to be revegetated as mining is completed. These include the 5H:1V side slope, mine floors, mill site, and 1,400-foot access road. Compacted areas will be scarified to a depth of one foot, covered with stockpiled surface material, and revegetated.

The Proposed Project was screened for emission generation using MDAQMD "Rule Book" guidelines, and Off-Road Mobile Source Emissions Factors (2012). The criteria pollutants screened for included: reactive organic gases (ROG), nitrous oxides (NO<sub>x</sub>), carbon monoxide (CO), and particulates (PM<sub>10</sub> and PM<sub>2.5</sub>). Two of these, ROG and NO<sub>x</sub>, are ozone precursors.

Typically daily operations were screened for the following: a water truck, loaders, scraper/grader, a miscellaneous material handling equipment, and a rubber tired dozer. Refer to Table 2 for quarry equipment emissions and plant emissions.

**Table 1**  
**Reclamation Plan Emissions**  
**(Pounds per Day)**

<b>Source<sup>1</sup></b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Water Truck	0.64	5.6	2.0	0.24	0.23
Loader	1.0	8.0	3.9	0.48	0.47
Scraper/Grader	2.4	20.8	8.8	0.9	0.8
Other Material Handling Equipment	1.3	11.3	4.1	0.48	0.4
Rubber Tired Dozer	2.5	21.6	9.6	0.88	0.8
<b>Totals (lbs/day)</b>	<b>7.8</b>	<b>67.3</b>	<b>28.4</b>	<b>3.0</b>	<b>2.7</b>
MDAQMD Threshold (lbs/day)	137	137	548	82	82
<b>Significant</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

<sup>1</sup> Off-Road Mobile Source Emissions Factors (2012)

---

As shown in Table 1 , Project emissions would not exceed MDAQMD thresholds.

*Compliance with MDAQMD Regulation II and Rules 402 and 403*

Although the Proposed Project does not exceed MDAQMD thresholds, the Applicant is required to comply with all applicable MDAQMD rules and regulations as the MDAB is in non-attainment status for ozone and suspended particulates (PM<sub>10</sub> and PM<sub>2.5</sub> (state)). The Project shall comply with Regulation II which requires the Applicant to obtain and implement condition for a Permit to Construct and a Permit to Operate the proposed crush/screening plant and power generator. To limit dust production, the Applicant must comply with Rules 402 nuisance and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source. This would include, but not be limited to the following BACMs:

1. The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.
  - I. The Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being mined shall be watered to ensure that a crust is formed on the ground surface, and shall be watered at the end of each workday.
  - II. The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.
  - III. The Project proponent shall ensure that all mining and processing activities are suspended when winds exceed 25 miles per hour.

Exhaust emissions from vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces, would increase NO<sub>x</sub> and PM<sub>10</sub> levels in the area. Although the Proposed Project would not exceed MDAQMD thresholds during operations, the Applicant would be required to implement the following conditions as required by MDAQMD:

2. All equipment used for mining and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.
3. The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from truck idling.
4. The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks, which may include among others:

---

(1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

5. The aggregate crusher must obtain permits to construct and annually renew permits to operate from the MDAQMD and be in compliance with such permits.

MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for all diesel fueled engines, trucks, and equipment with the statewide CARB Diesel Reduction Plan. These measures will be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines.

- c) **Less Than Significant Impact.** The Proposed Project would not individually exceed any MDAQMD thresholds for criteria pollutants. The County of San Bernardino General Plan EIR concluded that continued development would contribute to pollutant levels in the County, many areas of which already exceed State and Federal air quality criteria. Findings on potentially significant impacts of the General Plan indicated that policies contained in the General Plan and mitigation measures in the EIR are expected to reduce emissions associated with future development. However, even after application of these policies and mitigation measures, the General Plan when viewed as a whole project, is expected to generate emission levels that would exceed the MDAQMD thresholds for criteria pollutants, resulting in a significant unavoidable adverse air quality impact. A Statement of Overriding Considerations for the General Plan EIR was adopted by the County Council. Less than significant impact is anticipated.
- d) **No Impact.** The Proposed Project is located in a remote area of northern San Bernardino County. No sensitive receptors are located within the project vicinity. Therefore, no impacts are anticipated.
- e) **No Impact.** The Proposed Project is the reclamation of a gypsum mine. The generation of objectionable odors is typically not associated with surface mining operations and there are no sensitive receptors within the project vicinity. Therefore, no impact is anticipated.



#### IV. BIOLOGICAL RESOURCES - Would the project:

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**SUBSTANTIATION:** (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ☒):  
Category «CAT»

The following analysis is based in part on the *Decision of Record and Environmental Assessment – Mesquite Lake Gypsum Mine, Bureau of Land Management, CA-690-EA08-30, August 13, 2010, Revised August 2011* and the *Decision of Record and Environmental*

---

Assessment – Mesquite Lake Gypsum Mine, Bureau of Land Management, CA-D090-2001-0029, January 1, 2012. (See Appendix A and B).

---

**a) Less than Significant with Mitigation Incorporated:**

According to the County General Plan, Biotic Resources Overlay Map, the site is within Desert Tortoise Habitat Overlay. The desert tortoise, (*Gopherus agassizii*), is listed as threatened by both the U.S. Fish and Wildlife Service and the State of California. The desert tortoise occurs in the area surrounding the proposed project site. Per the BLM's Decision Records (Appendix A and B) and as the Project Site occurs within the Desert Tortoise Habitat Overlay, the following mitigation measures are recommended to minimize potential impacts:

- BIO-1. All trash and food items should be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and disposed of in a licensed disposal facility on a regular basis.**
- BIO-2. All project related vehicular traffic should be confined to existing roads and only those new roads authorized by this action.**
- BIO-3. Any desert tortoises observed during any phase of the project should be left to move out of the way on its own. Handling of desert tortoises is not authorized.**
- BIO-4. To assure observation and avoidance of desert tortoises in roadways, the proponent should travel no more than 20 mph on all roads not maintained by the county during tortoise active season (mid-March to mid-November).**
- BIO-5. Workers should inspect for desert tortoises under vehicles and equipment prior to moving them. If a desert tortoise is present, the worker should carefully move the vehicle or equipment only when necessary or should wait for the desert tortoise to move out from under the vehicle or equipment.**
- BIO-6. The proponent should notify the BLM Needles Field Office upon locating a dead or injured desert tortoise at the project site or along any access road. Any desert tortoise injured by project related activities should be transported to a veterinarian for treatment at the expense of the proponent.**
- BIO-7. BLM biologists should have the authority to halt any action that could cause harm to a desert tortoise. Should BLM personnel identify potential harm to a desert tortoise during any phase of the project, all**

---

project work identified as a source of potential harm to the tortoise would be required to cease until a suitable course of action has been identified, including, as needed, consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended.

- BIO-8.** The proponent should notify the BLM Needles Field Office prior to any road improvements (widening, grating, etc.), construction (turn-arounds, pull-outs, etc.), and/or maintenance of the access roads. The proponent should specify exactly where the improvements, construction, and/or maintenance would take place so that biological and cultural surveys may be undertaken prior to the proponent making any changes in the access roads.

No other species, or their habitat, listed by the state or federal government as candidate, threatened or endangered would be affected by the proposed project.

**Less than Significant with Mitigation Incorporated:** Per the BLM's Decision Records (Appendix A and B) eighteen salt cedar (*Tamarix ramisissima*) trees are in and around the project site. GPS coordinates and height of salt cedar trees within seventy-five meters of the project site were recorded. Trees averaged between 10-15 feet tall. Since their introduction from Eurasia and Africa, tamarisk (also known as salt cedar) and other non-native invasive plant species have become a serious threat to critical water resources. Tamarisk species were introduced as ornamentals but are weedy trees with deep roots and one of the highest transpiration rates of any known phreatophyte (plants dependent upon ground water) (Hughes, 1993). As a result these species require a tremendous amount of water to survive. They are very prolific, with one large plant capable of producing over 500,000 tiny wind-dispersible seeds. Tamarisk will successfully out-compete native vegetation by monopolizing water resources, and by changing soil chemistry by the excretion of salt through the leaves.

Heavy equipment including dump trucks and excavators have the potential to transport invasive seed and plant material to the mesquite lake area. There is a need for all heavy equipment to be free of all invasive seed and plant material prior to entering the Mesquite Lake area.

To prevent the transport of invasive, non-native plant species to and from site the following mitigation measure is required:

- BIO-9:** All eighteen salt cedar individuals in the project vicinity should be removed prior to commencement of mining activities. GPS locations and approximate heights of these individuals have been provided in an appendix by the Needles field office invasive species coordinator. Removal of these trees will be done during the winter of 2008-2009 between October and February when the salt cedar is not in seed. Removal will be done by mechanical means. This will involve a

---

backhoe or similar device used to pull the entire tree including the root system from the ground. Trees will be stacked in a location away from any areas with standing water.

- BIO-10:** Before entering the site, all vehicles should be inspected for any invasive plant materials and seeds. Any vehicles containing mud or vegetative materials will be cleaned. This should be done offsite using a wash station, compressed air station or a commercial car wash that should wash the under carriage of the vehicle. Possible locations for washing of the vehicles include Primm, Jean or Las Vegas, NV. The method used to remove invasive materials from the vehicle should be reviewed by the BLM invasive weed coordinator prior to approval.
- BIO-11:** Before entering the site all clothing and footwear should be checked and any plant material, especially stickers, and burs that may contain invasive non-native plant seeds should be removed and disposed of in a trash receptacle.
- BIO-12:** There should be a briefing on the importance of preventing the spread of noxious weeds in areas that are not currently infested, and controlling the proliferation of weeds already present. Impacts of noxious weeds on native vegetation, wildlife, and fire activity should be discussed including an explanation of how invasive grasses provide a fine fuel understory which can spread fire from shrub to shrub and how this has historically been absent in the native desert ecosystem.
- BIO-13:** Reclamation should include the following:
- a. All cacti and yucca should be saved for transplanting purposes. These plants should be protected, stored in 5-gallon containers, watered and placed in a shaded environment during the period of storage. The aforementioned plants should be replanted according to the guidelines supplied by the BLM botanist.
  - b. The pit and new cross country access roads should be ripped and native seed should be spread over all disturbed areas. Planting of native seed should be done in accordance with guidelines to be supplied by the BLM botanist upon notification by the operator to BLM when reclamation is to be initiated.
  - c. The operator should notify the Authorized Officer when reclamation is completed to allow for inspection of reclamation activities.

---

**No Impact:** The proposed project is not located within a federally protected wetland as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.). Therefore, no impacts are anticipated.

**Less than Significant with Mitigation Incorporated:** Wildlife typical of the proposed site could include small mammals, such as pocket mice (*Perognathus* spp.), kangaroo rats (*Dipodomys* spp.), and jackrabbits (*Leupus californicus*) as well as larger animals, such as coyotes (*Canis latrans*) and common ravens (*Corvus corax*). The proposed action could result in the crushing and disturbance of some wildlife burrows and habitat; however, the project site itself is not essential habitat for any particular wildlife species.

In addition, the area is within a grazing allotment and burro Herd Management Area (HMA). Vehicles could collide with livestock or burros. The access route aligns with an allotment boundary fence, where a cattle guard exists to prevent cattle and burros from exiting the allotment/HMA.

To ensure potential impacts are reduced to a less than significant level, the following mitigation measures shall be implemented:

**BIO-14: All pits/trenches and drill holes should be constructed in such a way as to avoid trapping or injury to livestock or burros.**

**BIO-15: Vehicle operators should be made aware by the proponent of the presence of livestock and burros and take steps to avoid vehicle collision.**

- e) **Less Than Significant Impact:** The San Bernardino County Native Plant Protection policy (1989) provides protection for all trees greater than six inches in diameter at breast height (dbh). Such species include: smoke trees, mesquite, creosote rings, and all plants in the agave family, including Joshua trees. Joshua trees (*Yucca brevifolia*) and Mojave yuccas (*Y. schidigera*) occur on the site. With implementation of the recommended mitigation measures (BIO-12 and BIO-13), the project is not anticipated to conflict with any local policies or ordinances protecting native plants or other biological resources. Therefore, impacts are anticipated to be less than significant.
- f) **Less Than Significant Impact.** The Proposed Project is subject to and in conformance with the *California Desert Conservation Area Plan* (CDCA) 1980 *et seq.* The plan's Geology, Energy and Mineral Resources Element provides for continued recognition of access to and the availability of as much public land as possible for mineral exploration and development. Locatable mineral actions located within Multiple-Use Class L (limited) are to be subject to Title 43 CFR 3809 Regulations and applicable State and local law. Implementation of Mitigation Measures BIO-1 through BIO-15 would ensure potential impacts of the Proposed Project would be reduced to a less than significant level. Therefore, proposed reclamation activities would be in compliance with the

---

*California Desert Conservation Area Plan.*



**V. CULTURAL RESOURCES** - Would the project

- |   |                          |                                     |                                     |                          |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?       | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

---

**SUBSTANTIATION:** (Check if the project is located in the Cultural ☐ or Paleontologic ☐ Resources overlays or cite results of cultural resource review):

---

- a-d) **Less Than Significant with Mitigation Incorporated.** An archaeological records and literature search and a pedestrian survey of the project area was conducted on the subject property in January 2004, June 2004, April 2005 and September 2008 by the Needles Field Office Archaeologist. The archaeological survey revealed no prehistoric or historic resource values associated with the proposed mining location or the access routes. A review of the Needles Field Office sacred lands inventory revealed no areas of traditional or sacred Native American values within the project area.

Although the potential for unearthing buried historic and/or paleontological resources is considered low, implementation of the following mitigation measure would ensure potential impacts are reduced to a less than significant level:

**CR-1:** The proponent shall notify the BLM Needles Field Office prior to any road improvements (widening, grading, etc.), construction (turn-arounds, pull-outs, etc.), and/or maintenance of the access roads. In the event that cultural resources, including paleontological resources, are encountered; mining activities in the immediate area of the find will be halted and the County Museum and BLM notified. Inspection of uncovered resources will be made and if necessary a recovery and curation plan implemented.

In the event of an accidental discovery or recognition of any human remains, California State Health and Safety Code Section 7050.5 dictates that no further disturbances shall occur until the County Corner has made the necessary findings as to origin and disposition pursuant to CEQA regulations and Public Resources Code Section 5097.98. With adherence to mandatory State Health and Safety Code Section 7050.5 which stipulates the

---

process to be followed when human remains are encountered, no mitigation measures are necessary.

## VI. GEOLOGY AND SOILS - Would the project:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                          |                          |                                     |                                     |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| ii. Strong seismic ground shaking?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii. Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iv. Landslides?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001) creating substantial risks to life or property?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION:** (Check ☐ if project is located in the Geologic Hazards Overlay District):

- a) **Less Than Significant Impact.** The Project Site lies within the eastern part of San Bernardino County in a part of California considered not to be seismically active. Although there are numerous relatively small faults in the area, most do not exhibit recent activity. According to Blake (2004), the nearest major fault is the Garlock Fault, which is located approximately 50 miles to the west of the Project Site. The Garlock fault is a major fault

---

that has exhibited earthquake activity during recent Holocene time (Jennings, 1994). The State Line Fault, located a few miles east of the site on the California-Nevada border has been classified as an older fault that has exhibited early Quaternary activity (movement within the last 1.6 million years) (Jennings, 1994). The Ivanpah Fault is located about ten miles southeast the site. This fault trends in a northwest-southeast orientation and is approximately 33 miles long. Most of the Ivanpah Fault is buried beneath Quaternary alluvium and no surface expression of this fault is present in the vicinity of the project site. The Ivanpah Fault is considered an inactive fault not having earthquake activity within the last 1.6 million years (Jennings, 1994). The site is not located within an area designated by the Alquist-Priolo Special Studies Zone Act of 1972.

The BLM approved the Mesquite Lake Gypsum Mine POO to allow mining of the site. The mining operation is a simple scraping of the shallow gypsum deposited at the surface of the dry lakebed. The mine design includes a shallow 5-foot depth with a maximum operational slope of 5H: 1V. Since no substantial slopes or human occupied structures are proposed on-site, no significant impacts are expected to result.

- b) **Less Than Significant Impact.** The project site is located within Mesquite Lake, a dry lakebed. The area is the lowest spot within the surrounding watershed, therefore no downstream impacts will occur as a result of the mining activity. No significantly developed watercourses exist within the vicinity. The area acts as one large settling basin. The lakebed is dry for most of the year, however, after periods of heavy rainfall, standing water is evident. Control of surface drainage, erosion, and sedimentation of planned operations involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations.
- Diverting run-off from undisturbed areas around the active mining area as necessary.
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary.
- Stabilizing disturbed areas through grading or revegetation.

Due to the low precipitation, lakebed hydrology (flat gradient of the lakebed), and sandy nature of the soil, drainage control does not present a significant impact. Run-off resulting from direct precipitation and uncontrolled run-off from surrounding lakebed areas have the potential to cause minor erosion and deposition, in both the disturbed and downgradient areas. Upon reclamation, all disturbed area drainage would be retained within the basins and low-lying areas; therefore, impacts are anticipated to be less than significant.

- c) **Less Than Significant Impact:** The project boundary's perimeter slopes are planned to be reclaimed concurrently to an overall slope gradient of 5H:1V during operations to meet reclamation performance standards as stated in Article 9, Reclamation Standards §3704(d) in 14 CCR. Phased reclamation will take place on an annual basis. Upon completion of



---

mining in an area, the site would be scarified and the surface material graded into place. The surface material used to create the elevated stockpile area will be re-graded into place. Revegetation would be conducted and the area flagged off to avoid further disturbance.

Final reclamation will be undertaken upon completion of mining operations. Any remaining slopes will be reduced to 5H:1V and compacted areas scarified to a depth of one foot during final contouring and prior to revegetation of mine areas. Any waste material followed by salvaged surface material will be spread evenly within the pit area and revegetation conducted. The reclaimed end use will be open space and wildlife habitat. Proposed reclamation would not result in any unstable conditions at the Project Site; a less than significant impact would result.

- d) **No Impact.** The Project Site is not located in an area which has been identified by the County Building and Safety Geologist as having the potential for expansive soils. No impact is anticipated.
- e) **No Impact.** Septic tanks and/or alternative water supply systems are not proposed as part of the proposed project. Therefore, no impacts are anticipated.

---

**VII. GREENHOUSE GAS EMISSIONS** - Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ☐ ☐ ☒ ☐
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☐ ☐ ☒ ☐

---

**SUBSTANTIATION:**

---

**Greenhouse Gas Emissions Measures**

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

The San Bernardino County GHG Reduction Plan ("GHG Plan") presents a comprehensive set of actions to reduce the County's internal and external GHG emissions to 15% below current levels by 2020, consistent with the AB 32 Scoping Plan.

a) **Less Than Significant Impact.**

Greenhouse gas emissions from the project were evaluated to determine if emissions could be reduced below the 3,000 MTCO<sub>2</sub>E threshold established by the County of San Bernardino Greenhouse Gas Emissions Reduction Plan without the need for incorporation of mitigation measures.

As shown in Table 3, The Reclamation GHG emissions are not anticipated to exceed the County's GHG emissions threshold; therefore a less than significant impact is anticipated.

**Table 3**  
**Greenhouse Gases**

<b>Task</b>	<b>CO<sub>2</sub><sup>1</sup></b>	<b>CH<sub>4</sub><sup>1</sup></b>	<b>N<sub>2</sub>O<sup>2</sup></b>
Reclamation Equipment	6,572	0.70	0.05
<b>Total Per Year (lbs)<sup>3</sup></b>	<b>138,012</b>	<b>14.3</b>	<b>0.11</b>
MTCO <sub>2</sub> e	62.6	0.006	0.00005
<b>Total MTCO<sub>2</sub>e</b>	<b>62.6</b>		
Threshold	3,000 MTCO <sub>2</sub> e		
<b>Significant</b>	<b>NO</b>		

<sup>1</sup> Off-Road Mobile Source Emissions Factors (2010);

Emission Factors for On-Road Heavy-Duty Diesel Trucks (Emfac 2010)

<sup>2</sup> California Climate Action Registry General Reporting Protocol, 2009;

Table A9-8-C SCAQMD Handbook; Climate Leaders EPA, Section 3, Table 2.

<sup>3</sup> 21-day Reclamation Process

The GHG reducing performance standards were developed by the County to improve the energy efficiency, water conservation, vehicle trip reduction potential, and other GHG reducing impacts from all new development approved within the unincorporated portions of San Bernardino County. As such, the following Performance Standards establish the minimum level of compliance that development must meet to assist in meeting the 2020 GHG reduction target identified in the County GHG Emissions Reduction Plan. These Performance Standards apply to all Projects, including those that emit less than 3,000 MTCO<sub>2</sub>e per year, and will be included as Conditions of Approval for development projects.

The following are the Performance Standards (Conditions of Approval) that are applicable to the Project:

*1. The "developer" shall submit for review and obtain approval from County Planning of a signed letter agreeing to include as a condition of all construction contracts/subcontracts requirements to reduce GHG emissions and submitting documentation of compliance. The developer/construction contractors shall do the following:*

*a) Select construction equipment based on low GHG emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.*

*b) All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.*

*c) All construction equipment (including electric generators) shall be shut off by work crews when not in use and shall not idle for more than 5 minutes.*

b) **Less Than Significant Impact.**

The state and local regulatory programs for GHG emissions and climate change are described in the response to Question VIIa above. The performance standards described above will ensure that there would be no conflict with any applicable plan, policy, or regulation; therefore, impacts would be less than significant, and no mitigation would be required.



**VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:**

- |  |                          |                                     |                                     |                                     |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

---

---

**SUBSTANTIATION:**

---

- a, b) **Less Than Significant Impact with Mitigation Incorporated.** Reclamation would include, but not be limited to: 1) Saving of topsoil for final application after reshaping of disturbed areas have been completed; 2) Measures to control erosion, landslides, and water runoff; 3) Measures to isolate, remove, or control toxic materials; 4) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and 5) Rehabilitation of fisheries and wildlife habitat.

The vehicles and generators used during reclamation would contain fuel, oil, antifreeze, and other fluids, which fall under hazardous and special materials. To ensure potential impacts are reduced to a less than significant level the following mitigation measures shall be implemented:

- HAZ-1:** The proponent and associated project personnel should comply with all Federal, State and County regulations and codes, including but not limited to Occupational Safety and Health Administration and Environmental Protection Agency regulations. Requirements include provisions of the Resources Conservation and Recovery Act, Comprehensive Response, Compensation, and Liability Act, and Clean Water Act.
- HAZ-2:** A Health and Safety Plan (HASP) for the project should be developed and implemented prior to beginning site operations in accordance with 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65. The plan should also be maintained on the project site and made available to, and reviewed by, all employees at all times that work is in progress and reviewed with those working on site.
- HAZ-3:** The HASP should include a separate site-specific ERP section of the HASP for the project in accordance with 29 CFR 910.120(b)(4)(ii)(H) and 1926.65(b)(4)(ii)(H). The ERP should be developed and implemented prior to beginning site operations.
- HAZ-4:** A copy of the HASP (including the ERP) should be submitted to the BLM Needles Field Office prior to beginning site operations.
- HAZ-5:** A written plan describing how the OSHA Hazard Communication Standard will be met should be prepared and implemented in accordance with 29 CFR 1910.1200. The plan should include a list of hazardous chemicals on site, hazardous chemical labeling and other forms of warning, material safety data sheets (MSDS) administration, and employee information and training.
- HAZ-6:** Prior to mobilization on the site, all equipment should be inspected to be

---

sure it is operating correctly and free of leaks. Equipment should be inspected daily to ensure that there are no discharges. Equipment maintenance activities should not be conducted on the site. Appropriate spill containment material should be kept on site. All fuels and other materials used should be contained within the equipment or stored in appropriate containers. All materials should be removed from the site upon completion of construction activities.

- HAZ-7:** The operators should develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities. A copy of this plan should be provided to the Authorized Officer prior to initiating the proposed activity.
- HAZ-8:** A copy of the list of project related OSHA hazardous chemicals should be provided to the Needles Field Office.
- HAZ-9:** Material Safety Data Sheets for fuel, oil, antifreeze, and all other chemicals characterized as hazardous by the OSHA should be made available at the location of use and should be properly/legally stored. Sealed containments should be installed under all generators, and tanks, and state and county permits required for tanks and other storage should be secured prior to use on site.
- HAZ-10:** Fuels, oils, and all hazardous materials should be transported and stored on site in U.S. Department of Transportation and OSHA approved containers, within a containment area with an impermeable lining. A spill response/removal kit for fuels/oils, consisting at a minimum of equipment and supplies to address the quantities of materials on site, should be on site for containment of spills and legal removal of contaminated soils.
- HAZ-11:** No regulated hazardous, radioactive, "special" or "universal" wastes should be brought onto the site without the prior approval of the Authorized Officer.
- HAZ-12:** If any serious injury or death occurs in connection with this project, the proponent should notify the BLM immediately and follow the initial report within 24 hours after the incident/accident with written report detailing the incident and resulting actions. The BLM should supply the necessary forms for reporting the incident and copies of ambulance and

---

**emergency room reports must also be submitted to the BLM.**

---

**HAZ-13: Contamination of soils with hydraulic fluids, oils or other lubricants would not be permitted. A tarpaulin, plastic, or other protective device should be required to prevent fluid/soil contact. Contaminated soils should be handled and disposed of in accordance with Environmental Protection Agency regulations for hazardous wastes. All costs associated with this cleanup should be borne by the proponent.**

- c) **No Impact.** The Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels and lubricants. The operator would continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials during reclamation of the site. Potential impacts from the risk of exposure both on-site and off-site are anticipated to be less than significant with implementation of Mitigation Measures HAZ-1 through HAZ-13. During reclamation, diesel exhaust would be generated by heavy construction equipment; however, no school facilities or proposed school facilities are located within one-quarter mile radius of the Project Site. No impacts are anticipated.
- d) **Less than significant impact.** The Project Site is not identified on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The operator would comply with all applicable federal and state safety rules and regulations regarding hazardous materials. Potential impacts from the risk of exposure both on-site and off-site are anticipated to be less than significant with implementation of Mitigation Measures HAZ-1 through HAZ-13.
- e) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Regional Map CJDJB (specific area CJ20), the Project Site does not occur within an airport influence area. Therefore, the Proposed Project would not result in safety hazard impacts from aircraft-related uses. No impact is anticipated.
- f) **No Impact.** The Project Site is not within the vicinity or approach/departure flight path of a private airstrip. Therefore, no impact is anticipated.
- g) **No Impact.** Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, implementation of reclamation activities would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact is anticipated.
- h) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Regional Map CJDJB (specific area CJ20), the Project Site does not occur within a Fire Safety Overlay District. Therefore, the Proposed Project would not result in any safety hazard



---

impacts from wild fires. No impact is anticipated

**IX. HYDROLOGY AND WATER QUALITY - Would the project:**

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structure which would impede or redirect flood flows?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

---

j) Inundation by seiche, tsunami, or mudflow?

☐☐☐☒

---

**SUBSTANTIATION:**

---

- a, f) **Less Than Significant Impact.** Due to the low precipitation, lakebed hydrology (flat gradient of the lakebed), and sandy nature of the soil, drainage control does not present a significant impact. Run-off resulting from direct precipitation and uncontrolled run-off from surrounding lakebed areas have the potential to cause minor erosion and deposition, in both the reclaimed and downgradient areas. Area drainage would be retained within the basins and low-lying areas created during reclamation.

The objective of all drainage control measures will be to limit flow volumes and velocities to minimize or prevent erosion and to promote settling of suspended solids before the run-off leaves the Project Site. Drainage control measures will be implemented as needed based on seasonal precipitation and the impact, if any, to the operating areas. The area is the lowest spot within the surrounding watershed, therefore no downstream impacts will occur. Therefore, impacts are anticipated to be less than significant.

- b) **Less Than Significant Impact.** The Project Site is not within a groundwater storage or recharge area and, therefore, would not interfere with groundwater recharge. The Proposed Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

An agreement with a local Rancher (Two Hawks Ranch) is in place to purchase water from their agricultural well. A 10,000 gallon water tank at the ranch site will be used. It is anticipated approximately 16,000 gallons of water per day will be required. Domestic water for drinking will be imported for employees. Domestic wastewater and septage will be collected and removed by a licensed operator. Less than significant impact is anticipated.

- c-e) **Less Than Significant Impact.** The Applicant would limit surface disturbance to those areas required for reclamation. Surface disturbance areas that would be subject to potential erosion and sediment loss would be limited through long-range planning, effective-design practices, phased reclamation of disturbed areas. The County will approve an on-site drainage control system. Therefore, less than significant impact is anticipated.

- g, h) **No Impact.** The Proposed Project does not occur within a 100-year flood plain, nor does it involve the construction of housing or would place housing within a flood plain. No impacts are anticipated.

- i) **Less Than Significant Impact.** According to County of San Bernardino Hazards Overlay Map CJDJB, the Project Site and surrounding area is located outside of any designated dam inundation area. The Proposed Project would not expose people or structures to a

---

significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, as no levee or dam is proposed as part of the this project. Therefore, impacts are anticipated to be less than significant.

- j) **No Impact.** A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. As the Project Site is not located adjacent to any body of water that has the potential of seiche or tsunami, no impacts are anticipated.

---

**X. LAND USE AND PLANNING** - Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

---

***SUBSTANTIATION:***

---

- a) **No Impact.** The Project Site is currently vacant and surrounded by open space lands. The Proposed Project is consistent with the County General Plan and would not physically divide an established community. No impacts would result.
- b) **No Impact.** The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project as the project is consistent with all applicable land use policies and regulations of the County of San Bernardino General Plan. No impacts are anticipated.
- c) **Less Than Significant Impact.** Approval of the Reclamation Plan per reclamation activities would not conflict with a habitat conservation plan or natural community conservation plan. Less than significant impact is anticipated.



---

**XI. MINERAL RESOURCES** - Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ☐ ☐ ☐ ☒
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ☐ ☐ ☐ ☒

---

**SUBSTANTIATION:** (Check ☐ if project is located within the Mineral Resource Zone Overlay):  
«MRZ»

---

- a-b) **No Impact.** The State's Guidelines for Classification and Designation of Mineral Lands help implement SMARA by providing the State Geologist with direction in carrying out mineral resource classification of lands in California that are threatened by uses that will be incompatible with, or will preclude quarrying. In addition, these guidelines describe how the State Mining and Geology Board (SMGB) may elect to designate mineral-bearing areas of statewide or regional significance.

Classification is the process of identifying lands containing significant mineral deposits. Designation is the formal recognition by the SMGB, after consultation with lead agencies and other interested parties, of areas containing mineral deposits of regional or statewide significance. The objective of classification and designation processes is to ensure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or of regional significance are available when needed. Classification is completed by the State Geologist in accordance with the SMGB's priority list, into Mineral Resource Zones (MRZ). Classification is based on geologic and economic factors without regard to existing land use and land ownership. Within the classifications, "MRZ-2" is defined as areas that contain identified mineral resources.

The California Department of Conservation Division of Mines and Geology has not mapped the site. However, mining claims have been issued for the gypsum deposits. The Proposed Project would supply gypsum to the region. Therefore, the Proposed Project would not result in the loss of availability, however, would provide a mineral resource that would be of value to the region and the residents of the State. Therefore, no impacts are anticipated.

**XII. NOISE** - Would the project result in:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION:** (Check if the project is located in the Noise Hazard Overlay District ☐ or is subject to severe noise levels according to the General Plan Noise Element ☐):

- a,c,d **No Impact.** Approval of the project would require reclamation activities to conform to all applicable noise control regulations. There are no nearby noise sensitive land uses within the vicinity of the Project Site. Therefore, no impacts are anticipated.
- b) **Less Than Significant Impact.** Blasting is not proposed as part of reclamation activities. Reclamation would take place during phases and at the end of mining and would typically be conducted between normal daylight hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday. Therefore no significant impacts from excessive groundborne vibration or groundborne noise levels would result.

- 
- e, f) **No Impact.** The Project Site is not located within an airport land use plan nor within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, that would expose people at the Project Site to excessive noise levels. Therefore, impacts from airport-related noise are not anticipated.

---

**XIII. POPULATION AND HOUSING** - Would the project:

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

---

***SUBSTANTIATION:***

---

- a) **No Impact.** The Proposed Project would not induce substantial population growth in an area either directly or indirectly. No impacts are anticipated.
- b) **No Impact.** The proposed use would not displace substantial numbers of existing housing units, or require the construction of replacement housing, as no housing units are proposed to be demolished as a result of this project. No impacts are anticipated.
- c) **No Impact.** Implementation of the Proposed Project would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere, as no housing exists at the Project Site.

---

#### XIV. PUBLIC SERVICES

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

---

#### ***SUBSTANTIATION:***

---

- a) **No Impact.**

The Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, or hinder acceptable service ratios, response times or other performance objectives for any of the public services, including fire and police protection, schools, parks or other public facilities because the Project consists of mining minerals with no permanent improvements proposed. After mining operations, the site would consist of vacant land. Therefore, no impacts are anticipated.



---

## XV. RECREATION

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☐ ☒
- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ☐ ☐ ☐ ☒

---

### ***SUBSTANTIATION:***

---

a-b) **No Impact.**

Approval of the Proposed Project would not generate the need for new jobs or housing which would induce population growth in adjacent areas, and ultimately increase the use of park facilities or other recreational facilities in the region. No impacts are anticipated.

**XVI. TRANSPORTATION/TRAFFIC - Would the project:**

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Result in inadequate emergency access?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

---

**SUBSTANTIATION:**

---

**a-b) Less Than Significant Impact.**

The anticipated production rate will be up to 750 tons per day. Therefore, traffic generated by the project would include up 38 bottom dump truck trips per day, a water truck, and up to 4 personnel to and from the project site to conduct daily excavation/reclamation activities. Project-related vehicle traffic would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on

---

roads, or congestion at intersections), or exceed, either individually or cumulatively, a level of service standard. Impacts would be less than significant.

- c) **No Impact.** Approval of the reclamation plan would not affect air traffic patterns because no airport facilities are located in the vicinity of the site. No impacts are anticipated.
- d) **No Impact.** Reclamation activities would not result in an additional truck trips beyond approved mining activities and would not involve any road developments or design features that could substantially increase hazards on public roads. Therefore, less than significant impact is anticipated.
- e-f) **No Impact.** Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. In addition, no road closures would be required. The Proposed Project would not involve any long-term increase in traffic that would conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would result.

**XVI. UTILITIES AND SERVICE SYSTEMS** - Would the project:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION:**

- a,e) **No Impact.** The Proposed Project would not require sewer collection or treatment services and therefore no off-site discharge of treated wastewater would occur. No impacts related to wastewater treatment are anticipated.
- b) **No Impact.** Water would be used for dust control measures only. Water would be applied to the reclamation areas and transfer points. An agreement with a local Rancher (Two Hawks Ranch) is in place to purchase water from their agricultural well. A 10,000 gallon water tank at the ranch site will be used. It is anticipated approximately 16,000 gallons of water per day will be required. Domestic water for drinking will be imported for employees. Domestic wastewater and septage will be collected and removed by a licensed operator. Therefore,

---

no impacts related to expanding a water treatment or distribution system would occur.

- c) **Less Than Significant Impact.** Due to low rainfall the site has little potential for erosion and sedimentation. All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water Best Management Practices. Less than significant impacts are anticipated.
- d) **Less Than Significant Impact.** An agreement with a local Rancher (Two Hawks Ranch) is in place to purchase water from their agricultural well. A 10,000 gallon water tank at the ranch site will be used. It is anticipated approximately 16,000 gallons of water per day will be required. Domestic water for drinking will be imported for employees. Domestic wastewater and septage will be collected and removed by a licensed operator. This Project would not have a significant impact on agricultural, potable or industrial users. Neither will the Project affect the water supply for any lower-income housing projects. Less than significant impact is anticipated.
- f, g) **No Impact.** Reclamation activities would not result in waste generation. Equipment maintenance will be done onsite. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities. All refuse will be kept in closed containers and removed from the site to permitted facilities as needed. Upon reclamation, the Project Site would be monitored twice a year. No trash would be allowed to collect on the site. No impact is anticipated.



---

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE:**

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ☐ ☐ ☒ ☐
- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? ☐ ☐ ☒ ☐
- c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☐ ☒ ☐

---

**SUBSTANTIATION:**

---

- a) **Less Than Significant Impact.** A biological field survey was prepared for the Proposed Project to analyze biological resources in the vicinity of the Project Site and summarize potential impacts to those resources that may occur as a result of project development. The Proposed Project could initially affect biological resources by grading of the site, and revegetation, throughout the proposed Quarry footprint. A Revegetation Plan was prepared for the proposed project. However, compliance with mitigation measures BIO-1 through BIO-14 would minimize impacts to less than significant levels.
- b) **Less Than Significant Impact.** This Initial Study has identified potentially significant impacts to cultural, biological resources, hazards and hazardous materials, and geology and soils. However, potentially significant impacts can be mitigated to levels of less than significant with mitigation incorporated.

In addition, The analysis in this Initial Study Checklist demonstrated that the Project is in compliance with all applicable regional plans including but not limited to, water quality control plan, air quality maintenance plan, and plans or regulations for the reduction of greenhouse gas emissions. Compliance with these regional plans serves to reduce impacts on a regional basis so that the Project would not produce impacts, that considered with the effects of other past, present, and probable future projects, would be cumulatively

considerable.

Less than significant impact is anticipated.

- c) **Less Than Significant Impact.** Final reclamation will be undertaken upon completion of mining operations. Any remaining slopes will be reduced to 5H:1V and compacted areas scarified to a depth of one foot during final contouring and prior to revegetation of mine areas (refer to Sheet 1). Any waste material followed by salvaged surface material will be spread evenly within the pit area and revegetation conducted. The reclaimed end use will be open space and wildlife habitat.

Revegetation efforts will occur in the disturbed areas including the graded pit floor, shallow 5-foot side slopes, and the site's 1,400-foot access road. The goal of the revegetation program is to reduce potential erosion and visual impacts, and to reestablish native habitat compatible with that currently found surrounding the site. Native species, which currently occur on or adjacent to the site, will be utilized to maintain the genetic balance of the area and to avoid the introduction of foreign species. Approximately 10-percent of the disturbed area will be reseeded as to represent surrounding adjacent vegetation with the gypsum dry lake bed.

The disturbed area to be revegetated as mining is completed. These include the 5H:1V side slope, mine floors, mill site, and 1,400-foot access road. Compacted areas will be scarified to a depth of one foot, covered with stockpiled surface material, and revegetated.

The Applicant will be required to obtain air quality permits from MDAQMD to operate, and ultimately perform reclamation of the site. All emission levels associated with the Proposed Project were less than adopted thresholds and therefore impacts were determined to be less than significant.

The implementation of the Mitigation Measures identified in this Initial Study Checklist would ensure that no substantial adverse effects on human beings, either directly or indirectly will occur.

## **XIX. MITIGATION MEASURES**

(Any mitigation measures, which are not 'self-monitoring', shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval)

**SELF MONITORING MITIGATION MEASURES:** Condition compliance will be verified by existing procedure.

---

**MITIGATION MEASURES:** (Condition compliance will be verified by existing procedure)

- BIO-1.** All trash and food items should be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and disposed of in a licensed disposal facility on a regular basis.
- BIO-2.** All project related vehicular traffic should be confined to existing roads and only those new roads authorized by this action.
- BIO-3.** Any desert tortoises observed during any phase of the project should be left to move out of the way on its own. Handling of desert tortoises is not authorized.
- BIO-4.** To assure observation and avoidance of desert tortoises in roadways, the proponent should travel no more than 20 mph on all roads not maintained by the county during tortoise active season (mid-March to mid-November).
- BIO-5.** Workers should inspect for desert tortoises under vehicles and equipment prior to moving them. If a desert tortoise is present, the worker should carefully move the vehicle or equipment only when necessary or should wait for the desert tortoise to move out from under the vehicle or equipment.
- BIO-6.** The proponent should notify the BLM Needles Field Office upon locating a dead or injured desert tortoise at the project site or along any access road. Any desert tortoise injured by project related activities should be transported to a veterinarian for treatment at the expense of the proponent.
- BIO-7.** BLM biologists should have the authority to halt any action that could cause harm to a desert tortoise. Should BLM personnel identify potential harm to a desert tortoise during any phase of the project, all project work identified as a source of potential harm to the tortoise would be required to cease until a suitable course of action has been identified, including, as needed, consultation pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended.
- BIO-8.** The proponent should notify the BLM Needles Field Office prior to any road improvements (widening, grating, etc.), construction (turn-arounds, pull-outs, etc.), and/or maintenance of the access roads. The proponent should specify exactly where the improvements, construction, and/or maintenance would take place so that biological and cultural surveys may be undertaken prior to the proponent making any changes in the access roads.
- BIO-9:** All eighteen salt cedar individuals in the project vicinity should be removed prior to commencement of mining activities. GPS locations and approximate heights of these individuals have been provided in an appendix by the Needles field office invasive species coordinator. Removal of these trees will be done

---

during the winter of 2008-2009 between October and February when the salt cedar is not in seed. Removal will be done by mechanical means. This will involve a backhoe or similar device used to pull the entire tree including the root system from the ground. Trees will be stacked in a location away from any areas with standing water.

- BIO-10:** Before entering the site, all vehicles should be inspected for any invasive plant materials and seeds. Any vehicles containing mud or vegetative materials will be cleaned. This should be done offsite using a wash station, compressed air station or a commercial car wash that should wash the under carriage of the vehicle. Possible locations for washing of the vehicles include Primm, Jean or Las Vegas, NV. The method used to remove invasive materials from the vehicle should be reviewed by the BLM invasive weed coordinator prior to approval.
- BIO-11:** Before entering the site all clothing and footwear should be checked and any plant material, especially stickers, and burs that may contain invasive non-native plant seeds should be removed and disposed of in a trash receptacle.
- BIO-12:** There should be a briefing on the importance of preventing the spread of noxious weeds in areas that are not currently infested, and controlling the proliferation of weeds already present. Impacts of noxious weeds on native vegetation, wildlife, and fire activity should be discussed including an explanation of how invasive grasses provide a fine fuel understory which can spread fire from shrub to shrub and how this has historically been absent in the native desert ecosystem.
- BIO-13:** Reclamation should include the following:
- a. All cacti and yucca should be saved for transplanting purposes. These plants should to be protected, stored in 5-gallon containers, watered and placed in a shaded environment during the period of storage. The aforementioned plants should be replanted according to the guidelines supplied by the BLM botanist.
  - b. The pit and new cross country access roads should be ripped and native seed should be spread over all disturbed areas. Planting of native seed should be done in accordance with guidelines to be supplied by the BLM botanist upon notification by the operator to BLM when reclamation is to be initiated.
  - c. The operator should notify the Authorized Officer when reclamation is completed to allow for inspection of reclamation activities.

- 
- BIO-14:** All pits/trenches and drill holes should be constructed in such a way as to avoid trapping or injury to livestock or burros.
- BIO-15:** Vehicle operators should be made aware by the proponent of the presence of livestock and burros and take steps to avoid vehicle collision.
- HAZ-1:** The proponent and associated project personnel should comply with all Federal, State and County regulations and codes, including but not limited to Occupational Safety and Health Administration and Environmental Protection Agency regulations. Requirements include provisions of the Resources Conservation and Recovery Act, Comprehensive Response, Compensation, and Liability Act, and Clean Water Act.
- HAZ-2:** A Health and Safety Plan (HASP) for the project should be developed and implemented prior to beginning site operations in accordance with 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65. The plan should also be maintained on the project site and made available to, and reviewed by, all employees at all times that work is in progress and reviewed with those working on site.
- HAZ-3:** The HASP should include a separate site-specific ERP section of the HASP for the project in accordance with 29 CFR 910.120(b)(4)(ii)(H) and 1926.65(b)(4)(ii)(H). The ERP should be developed and implemented prior to beginning site operations.
- HAZ-4:** A copy of the HASP (including the ERP) should be submitted to the BLM Needles Field Office prior to beginning site operations.
- HAZ-5:** A written plan describing how the OSHA Hazard Communication Standard will be met should be prepared and implemented in accordance with 29 CFR 1910.1200. The plan should include a list of hazardous chemicals on site, hazardous chemical labeling and other forms of warning, material safety data sheets (MSDS) administration, and employee information and training.
- HAZ-6:** Prior to mobilization on the site, all equipment should be inspected to be sure it is operating correctly and free of leaks. Equipment should be inspected daily to ensure that there are no discharges. Equipment maintenance activities should not be conducted on the site. Appropriate spill containment material should be kept on site. All fuels and other materials used should be contained within the equipment or stored in appropriate containers. All materials should be removed from the site upon completion of construction activities.
- HAZ-7:** The operators should develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention



---

measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities. A copy of this plan should be provided to the Authorized Officer prior to initiating the proposed activity.

- HAZ-8:** A copy of the list of project related OSHA hazardous chemicals should be provided to the Needles Field Office.
- HAZ-9:** Material Safety Data Sheets for fuel, oil, antifreeze, and all other chemicals characterized as hazardous by the OSHA should be made available at the location of use and should be properly/legally stored. Sealed containments should be installed under all generators, and tanks, and state and county permits required for tanks and other storage should be secured prior to use on site.
- HAZ-10:** Fuels, oils, and all hazardous materials should be transported and stored on site in U.S. Department of Transportation and OSHA approved containers, within a containment area with an impermeable lining. A spill response/removal kit for fuels/oils, consisting at a minimum of equipment and supplies to address the quantities of materials on site, should be on site for containment of spills and legal removal of contaminated soils.
- HAZ-11:** No regulated hazardous, radioactive, "special" or "universal" wastes should be brought onto the site without the prior approval of the Authorized Officer.
- HAZ-12:** If any serious injury or death occurs in connection with this project, the proponent should notify the BLM immediately and follow the initial report within 24 hours after the incident/accident with written report detailing the incident and resulting actions. The BLM should supply the necessary forms for reporting the incident and copies of ambulance and emergency room reports must also be submitted to the BLM.
- HAZ-13:** Contamination of soils with hydraulic fluids, oils or other lubricants would not be permitted. A tarpaulin, plastic, or other protective device should be required to prevent fluid/soil contact. Contaminated soils should be handled and disposed of in accordance with Environmental Protection Agency regulations for hazardous wastes. All costs associated with this cleanup should be borne by the proponent.

---

## **GENERAL REFERENCES**

Association of Environmental Professionals, Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final - June 29, 2007.

CEQA Guidelines, Appendix G.

County of San Bernardino General Plan, 2007

County of San Bernardino Greenhouse Gas Emissions Reduction Plan, September, 2011

MDAQMD Handbook

Reclamation Plan For Mesquite Lake Gypsum Mine, 2012

[http://www.energy.ca.gov/sitingcases/ivanpah/documents/applicant/AFC/Volume1/ISEGS\\_005.4\\_Geology.pdf](http://www.energy.ca.gov/sitingcases/ivanpah/documents/applicant/AFC/Volume1/ISEGS_005.4_Geology.pdf)

Jennings, C. W. 1994. Fault Activity Map of California and Adjacent Areas. Division of Mines and Geology.

Jennings, C. W. 1961. Geologic Map of California, Kingman Sheet. 1:250,000 scale. Division of Mines.

Revegetation Plan for Mesquite Lake Gypsum Mine, August 2012

# Appendix A

---

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NEEDLES FIELD OFFICE**

**DECISION RECORD**

**JEDCO Mesquite Lake Gypsum Mine**

In accordance with 30 United States Code (U.S.C.) 22 and, 43 U.S.C. 1201 and 1701, it is my decision to approve Jedco Gypsum Company's proposal to conduct gypsum mining operations, as reviewed in Environmental Assessment CA-69-EA08-30 (CACA 050342) and described below. Conditioned through mitigation measures, I find that this action will not result in significant impacts on the human environment and that an Environmental Impact Statement is not required. I further find this action in conformance with applicable land use plans and that it will not cause unnecessary or undue degradation. Measures mitigating project impacts are formulated into the attached conditions of approval, incorporated by reference as the decision of the Bureau of Land Management regarding this action. A copy of this Decision Record and attendant stipulations shall be in the possession of the on-site operator during all undertakings approved herein.

Specifically, the approved action includes the following. The proponent will conduct a small surface mining operation to recover gypsum (gypsite) from the surface of Mesquite Dry Lake. The proposed mine site is located in Mesquite Valley, California, approximately five miles south of the town of Sandy Valley, Nevada. The gypsum occurs at the surface as wind blown gypsum sand and as a bedded evaporite deposit at depth. The gypsum sand contains some silt and clay impurities but is pure enough to be used as an agricultural soil additive without the need for any chemical beneficiation.

The operator will confine the surface disturbance area to a maximum of 160 acres in W½ E ½ of Section 5, T. 18 N., R. 13 E., as shown on the attached map. The operator will access the site by existing roads and approximately 2500 feet of new road, with a maximum width of twelve feet, from the existing county road to the site as shown on the attached map. The lake bed surface is flat and little if any preparation will be required for the "construction" of the new road segment. Other road work will consist of routine occasional maintenance during the life of the operation and will be confined to within the existing disturbed roadway. Removal of wind blown gypsum sand drifts are the primary source of the need for occasional maintenance.

Some areas of road widening not to exceed 20 feet in overall width will be necessary in selected areas on the roads that are located on Mesquite Dry Lake playa, to allow safe passage of vehicles from two directions. These selected areas will be confined to pull-off areas at strategic places and will not exceed 50 feet in length. The access route and pull-off areas will be identical to the approved Kummerfeld sites as shown on the attached map. Gypsite or interburden waste rock will be applied to some portions of the existing roads to suppress dust and repair or prevent rutting.

Information obtained from previous drilling has shown that the deposit, at shallow depths, is minable to a depth of approximately five (5) feet from the surface.

The operator will scrape the gypsum from the surface using a medium-sized bulldozer (e.g., Caterpillar D7 or D8) or front end loader. A front end loader will be used to move the gypsite to a crusher and screening assembly. The gypsite will be crushed as necessary and screen into three sizes. The sized material will be stockpiled adjacent to the loading site as depicted on the attached map. A diesel engine powered conveyor belt loader measuring approximately fifty feet in length and fifteen feet in height will be used to top load semi trailer bulk haulage trucks. These haulage trucks will transport the bulk product to market via the proposed access routes shown on the attached map.

Operations will begin as soon as possible. Initial operations will consist of one, eight to ten hour shift per day, six days per week, with a crew of three or four persons. The anticipated production rate will be approximately 325 tons per day (80,000 to 100,000 tons per year), assuming a weight of 1.9 tons per cubic yards, this will equate to approximately 50,000 cubic yards per year. Mining will be conducted year round January through December.

Sampling to date indicates that the thickness of economical grade gypsite is five feet. Maximum mine depth will be five feet, however, additional data could increase this depth and if so will be accomplished with submission and approval of a plan modification to BLM. There is little defined soil development at the surface and the surface is considered useable product so no topsoil stockpiling will be conducted. With depth the deposit is expected to become harder and more consolidated. When the more consolidated parts of the deposit are encountered at depth, a caterpillar mounted ripper will be used to loosen the bedded gypsum. Blasting or other use of explosives are not planned and will not be initiated without submission of a plan modification to BLM and obtaining required permits.

Equipment on site will consist of a medium-sized bulldozer, front end loader, scales, screener, conveyor belts, haul trucks, semi trailer bulk trucks, pickup fuel truck, diesel fuel tank, company or personal support vehicles, self contained portable toilet(s), water tank, small office and break room mobile trailer, and occasional pickup mounted auger drill rig. No onsite residency will be permitted and garbage and human wastes will be regularly disposed of in appropriate offsite, permitted facilities.

The 160 acre site, if mined to an average depth of three feet, will provide product for a period of approximately fifteen years of operation at anticipated levels of production (50,000 cubic yards per year) under this plan of operations. Operations exceeding five years in duration will require periodic review of this plan by BLM.

Pit walls will not exceed a 2:1 (vertical to horizontal) slope while the operation is active and will be reduced to a 1:2 (vertical to horizontal) slope during periods of temporary non-operation and final closure. The amount of interburden within the deposit has not been determined. Thin beds of interburden waste will be stockpiled within the 160 acre



site for return and spreading within the pit area upon closure. Thick beds of interburden waste rock will define mine depth since its removal will be uneconomic. During periods of temporary inactivity or final closure, all equipment and refuse will be removed from the site.

To the extent possible and as discussed above, reclamation of the site will adhere to the following standards. In accordance with Title 43 Code of Federal Regulations (CFR) 3809.0-6, assurance of adequate and responsible measures to prevent unnecessary or undue degradation of the Federal lands and to provide for reasonable reclamation is required of the proponent, after but not limited to 3809.0-5(k) and 3809.1-3(d). After 43 CFR 3809.1-5(c)(5), reclamation of all areas of disturbance will be completed to the following standards, and reasonable measures will be taken to prevent unnecessary and undue degradation of the Federal lands during operations, in accordance with 43 CFR 3809.0-5(k):

Access routes will be planned for only the minimum width needed for operations and will follow natural contours, where practicable to minimize cut and fill.

All tailings, dumps, deleterious materials or substances, and other waste produced by the operations will be disposed of so as to prevent unnecessary or undue degradation and in accordance with applicable Federal and State laws and will require a SMARA mine and reclamation plan approved by San Bernardino County.

A Health and Safety Plan will be prepared which will incorporate the Needles Field Office Health and Safety Plan and will be submitted to the BLM Authorized Officer prior to commencing operations.

At the earliest feasible time, the operator will reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site damage to Federal lands.

Reclamation will include, but not be limited to:

Saving of topsoil for final application after reshaping of disturbed areas have been completed;

Measures to control erosion, landslides, and water runoff;

Measures to isolate, remove, or control toxic materials;

Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

Rehabilitation of fisheries and wildlife habitat.

Pursuant to Title 43 Code of Federal Regulations (CFR) 3809.0-6, during operations and upon cessation of mining activities, you are responsible for assuring adequate and




responsible measures to prevent unnecessary or undue degradation of the Federal lands and in providing for reasonable reclamation, after but not limited to CFR 3809.0-5(k) and 3809.1-3(d).


An appeal from this decision may be taken to the State Director, California State Office, Bureau of Land Management in accordance with the provisions in Title 43 Code of Federal Regulations 3809. If an appeal is taken, the notice of appeal must be filed with the Needles Resource Area Office, 1303 South Highway 95, Needles, California 92363 within thirty (30) days from receipt of this decision. Do not send the notice of appeal to the State Director. The appeal and the case history will be sent to the State Director by the Resource Area Office. The appeal to the State Director must contain: 1. The name and mailing address of the appellant; 2. Where applicable, the name of the mining claim(s) and serial number(s) assigned to the mining claim(s) recorded pursuant to Part 3833 of this title which are subject to appeal; and 3. A statement of reasons for appeal and any arguments the appellant wishes to present which will justify reversal or modification of the decision. To avoid summary dismissal of the appeal, there must be strict compliance with the regulations.

During the appeal to the State Director, all decisions from which the appeal is taken shall be effective during the pendency of the appeal.

If no appeal is taken, this decision constitutes final administrative action of this Department as it affects the mining claim(s). No appeal, protest or petition for reconsideration will be entertained from this decision after the appeal period has expired.

Approved by:

  
acting  
Field Manager, Needles Field Office

  
August 13, 2010  
Date

**CONDITIONS OF APPROVAL AND ADVISORY:****CONTROL NUMBER: CA-069-EA08-30****PROJECT: JEDCO Mesquite Lake Gypsum Mine****Conditions of Approval**

1. All Federal, State and local laws and regulations shall be complied with.
2. All required permits must be obtained and filed with the BLM prior to the start of operations.
3. No hazardous materials shall be stored or used on site without the specific approval of the BLM.
4. All pits/trenches and drill holes shall be constructed in such a way as to avoid trapping or injury to livestock or burros.
5. The operator shall be responsible for informing all vehicle operators about the presence of livestock and burros in the area and take steps to avoid vehicle collision.
6. All trash and food items shall be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and removed on a regular basis.
7. All project related vehicular traffic shall be confined to existing roads and only those new roads authorized by this action.
8. Any desert tortoises observed during any phase of the project shall be left to move out of the way on their own. Handling of desert tortoises is NOT permitted!
9. To assure observation and avoidance of desert tortoises in roadways, the operator shall travel no more than 20 mph on all roads not maintained by the county during desert tortoise active season (mid-March to mid-November).
10. Workers shall inspect for desert tortoises under vehicles and equipment prior to moving it. If a desert tortoise is present, the worker shall carefully move the vehicle or equipment only when necessary or shall wait for the desert tortoise to move out from under the vehicle or equipment.
11. The operator shall notify the BLM Needles Field Office upon locating any dead or injured desert tortoise at the project site or along any access road. Any injured desert tortoise shall be transported to a veterinarian for treatment at the expense of the operator.

13. BLM biologists have the authority to halt any action that could cause harm to a desert tortoise. Should BLM personnel identify potential harm to a desert tortoise during any phase of the project, all project work identified as a source of potential harm to the tortoise shall be required to cease until a suitable course of action has been identified, including, as needed, consultation pursuant to Section 7(a)(2) of the Endangered Species Act of 1973, as amended.
14. The operator shall notify the BLM Needles Field Office prior to any road improvements (widening, grading, etc.), construction (turn-arounds, pull-outs, etc.), and/or maintenance of the access roads. The operator shall specify exactly where the improvements, construction, and/or maintenance would take place.
15. The operator shall meet all Federal and State Air Quality standards and regulations, and be in possession of all necessary permits. These permits shall be on file with the BLM and the operator is required to supply the BLM with copies of these permits before operations begin.
16. Operations which generate fugitive dust emissions shall be curtailed when wind speeds exceed 30 MPH.
17. Additional mitigation measures shall be implemented if fugitive dust emissions exceed the Mojave Desert Air Quality Management District (MDAQMD) standards or California Health and Safety Code Section 41700 and 41701.
18. MDAQMD permits shall be kept current.
19. Contamination of soils with hydraulic fluids, oils or other lubricants is not permitted. A tarpaulin, plastic, or other protective device is required to prevent fluid/soil contact. Contaminated soils must be handled and disposed of in accordance with Environmental Protection Agency regulations for hazardous wastes. The operator shall be liable for all costs associated with remediation of hazardous wastes.
20. Reclamation shall include the following:
  - a. All cacti and yucca shall be saved for transplanting purposes. These plants shall be protected, stored in 5-gallon containers, watered and placed in a shaded environment during the period of storage. The aforementioned plants shall be replanted according to the guidelines supplied by the BLM botanist.
  - b. The pit and cross country access roads shall be ripped and native seed shall be spread over all disturbed areas. Planting of native seed shall be done in accordance with guidelines to be supplied by the BLM botanist upon prior notification by the operator to BLM when reclamation is to be initiated.

- c. All pit slopes shall be reduced not to exceed 1:1 and all waste rock stockpiles shall be spread within the pit area.
- d. The operator shall notify the Authorized Officer when reclamation is completed to allow for inspection of reclamation activities.
21. The operator(s) shall immediately cease operations upon encountering any cultural resources (prehistoric/historic sites or objects) and/or paleontological resources (fossils) during permitted operations, bring the resources to the attention of the Authorized Officer and maintain the integrity of such resources pending subsequent investigation.
22. Actions other than those explicitly approved by the Bureau of Land Management, which result in impacts upon archaeological or historical resources, shall be subject to the provisions of the Archaeological Resources Protection Act of 1979, as amended, and the Federal Land Policy and Management Act of 1976. These statutes protect cultural resources for the benefit of all Americans. As property of the United States, no person may, without authorization, excavate, remove, damage, or otherwise alter or deface any historic or prehistoric site, artifact or object of antiquity located on public lands.
23. The operator shall prepare a reclamation cost estimate in accordance with regulations at 43 CFR 3809.500 for review and approval by the Authorized Officer. An irrevocable financial assurance instrument in an amount to be determined and approved by the Authorized Officer shall be delivered to BLM, Needles Field Office prior to initiation of mining operations. This bond shall be made payable to the following agencies, as shown: Bureau of Land Management, Needles Field Office, or County of San Bernardino, or State Department of Conservation. Return or release of the bond shall be contingent upon completion of satisfactory reclamation as determined by the Authorized Officer.
24. Prior to widening any portion of existing roads to allow safe passage of equipment and vehicles, the operator shall notify BLM and provide the location of the proposed widening. Road widening shall be limited to Mesquite Dry Lake Playa unless the operator can demonstrate a need for other locations based upon safety considerations. No road widening is allowed without the specific written approval of the Authorized Officer.
25. Portable toilets shall be provided in appropriate numbers for the numbers of employees on site in accordance with County Health Codes and shall be regularly serviced and dumped.
26. Fuel, oil, antifreeze, and all other fluids, which fall under hazardous and special materials and the proposed action, would produce solid, hazardous, and special wastes in the event of an accident, and/or are required to have a Material Safety Data Sheet available at the location of use, shall be properly/legally stored.

Sealed Containments shall be installed under all generators, and tanks, and state/county permits/licenses required for tanks and other storage shall be secured prior to use on site.

27. The proponent and associated project personnel shall comply with all Federal, State and County regulations and codes, including but not limited to the Occupational Safety and Health Administration and Environmental Protection Agency regulations. Requirements include provisions of the Resources Conservation and Recovery Act, Comprehensive Response, Compensation, and Liability Act, and Clean Water Act.
28. A Health and Safety Plan (HASP) for the project shall be developed and implemented prior to beginning site operations in accordance with 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65. The plan shall also be maintained on the project site and made available to, and reviewed by, all employees at all times that work is in progress and reviewed with those working on site.
29. The HASP shall include a separate site-specific Emergency Response Plan (ERP) section of the HASP for the project in accordance with 29 CFR 1910.120(b)(4)(ii)(H) and 1926.65(b)(4)(ii)(H). The ERP shall be developed and implemented prior to beginning site operations.
30. A copy of the HASP (including the ERP) shall be submitted to the Needles Field Office and approved by the Authorized Officer prior to beginning site operations.
31. A written plan describing how the OSHA Hazard Communication Standard shall be met shall be prepared and implemented in accordance with 29 CFR 1910.1200. The plan shall include a list of hazardous chemicals on site, hazardous chemical labeling and other forms of warning, material safety data sheets (MSDS) administration, and employee information and training.
32. Prior to mobilization on the site, all equipment should be inspected to be sure it is operating correctly and free of leaks. Equipment should be inspected daily to ensure that there are no discharges. Equipment maintenance activities should not be conducted on the site. Appropriate spill containment material should be kept on site. All fuels and other materials used should be contained within the equipment or stored in appropriate containers. All materials should be removed from the site upon completion of construction activities.
33. The operators should develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities. A copy of this plan should be provided to the Authorized Officer prior to initiating the proposed activity.



34. A copy of the list of project related OSHA hazardous chemicals shall be provided to the Needles Field Office.
35. Material Safety Data Sheets for fuel, oil, antifreeze, and all other chemicals characterized as hazardous by the OSHA shall be made available at the location of use and shall be properly/legally stored. Sealed containments shall be installed under all generators, and tanks, and state and county permits required for tanks and other storage shall be secured prior to use on site.
36. Fuels, oils, and all hazardous materials shall be transported and stored on site in U.S. Department of Transportation and OSHA approved containers, within a containment area with an impermeable lining. A spill response/removal kit for fuels/oils, consisting at a minimum of equipment and supplies to address the quantiles of materials on site, shall be on site for containment of spills and legal removal of contaminated soils.
37. No regulated hazardous, radioactive, "special" or "universal" wastes shall be brought onto the site without the prior approval of the Authorized Officer.
38. If any serious injury or death occurs in connection with this operation, the operator shall notify the BLM immediately and follow the initial report within 24 hours after the incident/accident with written report detailing the incident and resulting actions. The BLM shall supply the necessary forms for reporting the incident and copies of ambulance and emergency room reports must also be submitted to the BLM.
39. All eighteen salt cedar individuals in the project vicinity shall be removed prior to commencement of mining activities. GPS locations and approximate heights of these individuals have been provided in an appendix by the Needles field office invasive species coordinator. Removal of these trees shall be done during the winter of 2008-2009 between October and February when the salt cedar is not in seed. Removal shall be done by mechanical means. This shall involve a backhoe or similar device used to pull the entire tree including the root system from the ground. Trees shall be stacked in a location away from any areas with standing water.
40. Before entering the site, all vehicles shall be inspected for any invasive plant materials and seeds. Any vehicles containing mud or vegetative materials shall be cleaned. This shall be done offsite using a wash station, compressed air station or a commercial car wash that shall wash the under carriage of the vehicle. Possible locations for washing of the vehicles include Primm, Jean or Las Vegas, NV. The method used to remove invasive materials from the vehicle shall be reviewed by the BLM invasive weed coordinator prior to approval.
41. Before entering the site all clothing and footwear shall be checked and any plant



material, especially stickers, and burs that may contain invasive non-native plant seeds shall be removed and disposed of in a trash receptacle.

42. There shall be a briefing on the importance of preventing the spread of noxious weeds in areas that are not currently infested, and controlling the proliferation of weeds already present. Impacts of noxious weeds on native vegetation, wildlife, and fire activity shall be discussed including an explanation of how invasive grasses provide a fine fuel understory which can spread fire from shrub to shrub and how this has historically been absent in the native desert ecosystem.

**Advisory:**

1. An approved California State Mining and Reclamation Act permit is required prior to initiating operations.
2. The operator will be responsible for any damage or loss of livestock or herding fees as a result of this action.
3. This authorization applies only to public lands and does not infer any authorization for any use of private lands. The operator must reach agreement with private land owners for any access across or other use of private lands.
4. Another operation has BLM authorization to conduct operations in the immediate area. All operations must be conducted in a safe and courteous manner to avoid conflict or interference with all other authorized uses of the public lands.

## Appendix B

---

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
NEEDLES FIELD OFFICE**

**DECISION RECORD**

**JEDCO Mesquite Lake Gypsum Mine**

In accordance with 30 United States Code (U.S.C.) 22 and, 43 U.S.C. 1201 and 1701, it is my decision to approve Jedco Gypsum Company's proposal to conduct gypsum mining operations, as reviewed in Environmental Assessments CA-69-EA08-30 and DOI-BLM-CA-D090-2011-0029-EA (CACA 050342) and described below. Conditioned through mitigation measures, I find that this action will not result in significant impacts on the human environment and that an Environmental Impact Statement is not required. I further find this action in conformance with applicable land use plans and that it will not cause unnecessary or undue degradation. Measures mitigating project impacts are formulated into the attached conditions of approval, incorporated by reference as the decision of the Bureau of Land Management regarding this action. A copy of this Decision Record and attendant stipulations shall be in the possession of the on-site operator during all undertakings approved herein.

Specifically, the approved action includes the following. Dalton Trucking, Inc. currently conducts a small surface mining operation to recover gypsum (gypsite) from the surface of Mesquite Dry Lake under lease from JEDCO Gypsum Company. The mine site is located in Mesquite Valley, California, approximately five miles south of the town of Sandy Valley, Nevada. The gypsum occurs at the surface as wind blown gypsum sand and as a bedded evaporite deposit at depth. The gypsum sand contains some silt and clay impurities but is pure enough to be used as an agricultural soil additive without the need for any chemical beneficiation.

The Mine Site will be accessed from two routes via Interstate 15 (I-15), Sandy Valley Road and Excelsior Mine Road. Access to the operation from these routes is as follows: 1) Excelsior Mine Road traveling north from I-15 to Kingston Road east. Turn right at Texas Lane to access both the mill site and mine. 2) Sandy Valley Road to Kingston Road West, turn Left at Texas Lane to access both the mill site and mine.

The operator will confine the surface disturbance area to a maximum of 160 acres in W½ E ½ of Section 5, T. 18 N., R. 13 E., as shown on the attached map. The operator will access the site by existing roads and approximately 2500 feet of new road, with a maximum width of twelve feet, from the existing county road to the site as shown on the attached map. The lake bed surface is flat and little if any preparation will be required for the "construction" of the new road segment. Other road work will consist of routine occasional maintenance during the life of the operation and will be confined to within the

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA

existing disturbed roadway. Removal of wind blown gypsum sand drifts will be the primary source of the need for occasional maintenance.

Some areas of road widening not to exceed 20 feet in overall width has been necessary in selected areas on the roads that are located on Mesquite Dry Lake playa, to allow safe passage of vehicles from two directions. These selected areas have been confined to pull-off areas at strategic places and do not exceed 50 feet in length. The access route and pull-off areas are shown on the attached map. Gypsite or interburden waste rock will be applied to some portions of the existing roads to suppress dust and repair or prevent rutting.

Information obtained from previous drilling has shown that the deposit, at shallow depths, is minable to a depth of approximately five (5) feet from the surface.

The operator will scrape the gypsum from the surface using a medium-sized bulldozer (e.g., Caterpillar D7 or D8) or 623B Caterpillar scraper. A front end loader will be used to move the gypsite to a crusher and screening assembly. The gypsite will be crushed as necessary and screened into three sizes. The sized material will be stockpiled adjacent to the loading site as depicted on the attached map. A diesel engine powered conveyor belt loader measuring approximately fifty feet in length and fifteen feet in height will be used to top load semi trailer bulk haulage trucks. These haulage trucks will transport the bulk product to market via the proposed access routes shown on the attached map. Trips will vary between 5 and 25 trucks per day. Most of the loading will be between the hours of 6 am and 10 pm Monday through Friday. A loader (with on board scales) will be used to load the trucks.

The mine site will operate with 4 miners working 2 shifts Monday through Friday and with an occasional single day shift on Saturday. The first shift will be from 10 pm to 7 am. The miners will be operating a loader, feeding the screening plant with material stock piled from the second (AM) shift. The second shift will be from 6am and continue to approximately 3 pm. Evening operations will be supported by the night guard and 2 light towers to illuminate the area around the screening operation. All lights will be directed down and away from surrounding neighbors and properties. No onsite residency will be permitted and garbage and human wastes will be regularly disposed of in appropriate offsite, permitted facilities.

The anticipated production rate will be approximately 325 tons per day (80,000 to 100,000 tons per year), assuming a weight of 1.9 tons per cubic yards, this will equate to approximately 50,000 cubic yards per year. Mining will be conducted year round January through December.

Sampling to date indicates that the thickness of economical grade gypsite is five feet. Maximum mine depth will be five feet, however, additional data could increase this depth and if so will be accomplished with submission and approval of a plan modification to BLM. There is little defined soil development at the surface and the

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA

surface is considered useable product. However, the top six inches of surface material will be stockpiled and redistributed over mined areas on an annual basis as part of the reclamation operations. Mining will be conducted by stripping in approximately six (6) acre cells each year.

Methods for mining will include standard wheelloader excavation practices. The planned surface disturbance will be cleared of the sparse vegetation with the top six inches of surface material stockpiled along the perimeter of each annual phase or about 6-acre area. The gypsum will be scraped to a depth of up to 5 feet with a dozer, scraper, or dozer with or without a ripper/scarifiers. A front-end loader will feed material into the portable screen to achieve the desired consistency. A loader will load the screened gypsum into 25-ton haul trucks. The haul trucks will haul the gypsum to market or to the off-site mill site where it will be stockpiled, crushed (if needed), and bagged or possibly shipped in bulk.

With depth the deposit is expected to become harder and more consolidated. When the more consolidated parts of the deposit are encountered at depth, a caterpillar mounted ripper will be used to loosen the bedded gypsum. Blasting or other use of explosives are not planned and will not be initiated without submission of a plan modification to BLM and obtaining required permits.

Equipment on site will generally consist of a medium-sized bulldozer, scraper, motor grader, three front end loaders, scales, screener, conveyor belts, haul trucks, semi trailer bulk trucks, pickup fuel truck, diesel fuel tank, company or personal support vehicles, self contained portable toilet(s), water tank, small office and break room mobile trailer, and occasional pickup mounted auger drill rig. Equipment currently on site includes:

- 1 Cat D7 or D8 Dozer
- 1 623B Cat Scraper
- 2 980F Cat Loader
- 1 966D Cat Loader
- 1 12G Cat Motor Grader
- 1 15ft Adjustable Dual Gang Disc Attachment
- 1 McCloskey S190 Portable 5'x20' Screen Plant
- 1 4000 Gallon Water Truck
- 1 10 Wheel Dump Truck
- 1 Chevrolet 4500 Service Truck
- 1 International Fuel/Lube Truck
- 1 40ft Sea Container (Office/Storage)
- 1 3- Portable Light Towers
- 1 20kw China Diesel Portable Generator

Regular maintenance will be performed on site using the portable lube truck. All oil and grease will be stored and dispensed using an International Lube truck. An agreement with a local rancher (Two Hawks Ranch) to store bulk diesel fuel is in place. The

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA



International Lube Truck, Chevrolet 4500 Service Truck and the mine foreman's pickup truck will all be outfitted with appropriate diesel fuel tanks to transport fuel from bulk storage and fuel equipment at the mine site.

The 160 acre mine site, if mined to an average depth of three feet, will provide product for a period of approximately fifteen years of operation at anticipated levels of production (50,000 cubic yards per year) under this plan of operations. Operations exceeding five years in duration will require periodic review of this plan by BLM.

Pit walls will not exceed a 2:1 (vertical to horizontal) slope while the operation is active and will be reduced to a 1:2 (vertical to horizontal) slope during periods of temporary non-operation and final closure. The amount of interburden within the deposit has not been determined. Thin beds of interburden waste will be stockpiled within the 160 acre site for return and spreading within the pit area upon closure. Thick beds of interburden waste rock will define mine depth since its removal will be uneconomic. During periods of temporary inactivity or final closure, all equipment and refuse will be removed from the site.

During wet weather conditions, the last 2 to 3 miles of the dirt road leading into the mine may become muddy and unsafe to drive trucks over. Therefore, the 2, 5-acre mill sites (10 acres combined) will be used. The entire ten acre site will be disturbed for numerous stock piles, scales and loading facility. See the attached mill site map. A 2 month stock pile at the Mill Site is proposed. Depending on future volume, a 70-ft drive over truck scale to certify loads leaving from the Mill Site may be installed. Annual volume leaving the Mill Site for delivery to market is anticipated to be 20,000 tons per year.

To minimize dust, while screening the material, the screening plant will be outfitted with tarpaulin covers over all conveyers and water spray nozzles to wet the finished material as it comes off the conveyor belt. Dust control on the dirt roads, plant area, and mill site will be controlled as follows: establish a speed limit of 14 ½ MPH for trucks and mark the roads, plant area and mill site (when operated) with signs approximately every ¼ mile, and the roads are to be watered every morning. Water will also be sprayed on the stock piles of finished material at the mine and mill sites to form a crust and keep the material from blowing.

An agreement with a local Rancher (Two Hawks Ranch) is in place to purchase water from their agricultural well. A 10,000 gallon water tank at the ranch site will be used. It is anticipated approximately 16,000 gallons of water per day will be required. Domestic water for drinking will be imported for employees. Domestic wastewater and septage will be collected and removed by a licensed operator.

No wastewater will be generated as a result of excavation or screening operations. To protect soils and groundwater from potential contamination from run-off, fueling and maintenance areas shall be covered with impervious materials and equipped with



berms and catch basins to capture accidental spills and insure that run-on and run-off from this area is not contaminated.

Upon completion of mining and the need for the mill site, all equipment and stockpiles will be removed and any remaining refuse will be disposed of at an appropriate disposal site. The surface material used to create the elevated stockpile area will be re-graded into place. The area will be scarified and seeded with BLM approved seed mix. A State Mining and Reclamation Act (SMARA) reclamation plan has been approved and a conditional use permit has been authorized by San Bernardino County. A modification to that plan and permit has been submitted to the county.

To the extent possible and as discussed above, reclamation of the site will adhere to the following standards. In accordance with Title 43 Code of Federal Regulations (CFR) 3809.0-6, assurance of adequate and responsible measures to prevent unnecessary or undue degradation of the Federal lands and to provide for reasonable reclamation is required of the proponent, after but not limited to 3809.0-5(k) and 3809.1-3(d). After 43 CFR 3809.1-5(c)(5), reclamation of all areas of disturbance will be completed to the following standards, and reasonable measures will be taken to prevent unnecessary and undue degradation of the Federal lands during operations, in accordance with 43 CFR 3809.0-5(k):

Access routes will be planned for only the minimum width needed for operations and will follow natural contours, where practicable to minimize cut and fill.

All tailings, dumps, deleterious materials or substances, and other waste produced by the operations will be disposed of to prevent unnecessary or undue degradation and in accordance with applicable with Federal and State laws and will require a SMARA mine and reclamation plan approved by San Bernardino County.

The Dalton Rucking JEDCO Mesquite Lake Gypsum Health and Safety Plan will be available and followed by all employees.

At the earliest feasible time, the operator will reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site damage to Federal lands.

Reclamation will include, but not be limited to:

Saving of topsoil for final application after reshaping of disturbed areas have been completed;

Measures to control erosion, landslides, and water runoff;

Measures to isolate, remove, or control toxic materials;

Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

Rehabilitation of wildlife habitat.

### Appeals

An appeal from this decision may be taken to the State Director, California State Office, Bureau of Land Management in accordance with the provisions in Title 43 Code of Federal Regulations 3809. If an appeal is taken, the notice of appeal must be filed with the Needles Resource Area Office, 1303 South Highway 95, Needles, California 92363 within thirty (30) days from receipt of this decision. Do not send the notice of appeal to the State Director. The appeal and the case history will be sent to the State Director by the Resource Area Office. The appeal to the State Director must contain: 1. The name and mailing address of the appellant; 2. Where applicable, the name of the mining claim(s) and serial number(s) assigned to the mining claim(s) recorded pursuant to Part 3833 of this title which are subject to appeal; and 3. A statement of reasons for appeal and any arguments the appellant wishes to present which will justify reversal or modification of the decision. To avoid summary dismissal of the appeal, there must be strict compliance with the regulations.

During the appeal to the State Director, all decisions from which the appeal is taken shall be effective during the pendency of the appeal.

If no appeal is taken, this decision constitutes final administrative action of this Department as it affects the mining claim(s). No appeal, protest or petition for reconsideration will be entertained from this decision after the appeal period has expired.

Approved by:

  
Field Manager, Needles Field Office

1-30-2011  
Date

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA

## **CONDITIONS OF APPROVAL AND ADVISORY:**

**CONTROL NUMBER: DOI-BLM-CA-D090-2011-0029-EA**  
**PROJECT: JEDCO Mesquite Lake Gypsum Mine**

### **Conditions of Approval**

1. The operator shall designate a field contract representative (FCR) who will be responsible for overseeing compliance with protective conditions and for coordinating compliance with the Bureau of Land Management (BLM). The FCR must be onsite during all project activities. The FCR shall have the authority to halt all (project, event) activities that are in violation of the conditions. The FCR shall have a copy of the decision record and conditions of approval when work is being conducted on the site. The FCR may be a crew chief or field supervisor, a project manager, or any other employee of the operator.
2. The operator will comply with all conditions contained in this authorization unless otherwise approved in writing by the Authorized Officer. Non-compliance with these conditions by the operator or any of his agents may at the option of the Authorized Officer result in the cancellation or suspension of the authorization or adverse action against the operator.
3. The operator shall comply with applicable federal and state laws and regulations issued thereunder, existing or hereafter enacted or promulgated, affecting in any manner construction, operation, maintenance or termination of the authorization.
4. The operator shall confine all activities within the area specifically defined in the authorization.
5. When all development and rehabilitation have been completed, a joint compliance check of the project area will be made. The operator and the Authorized Officer shall hold a joint inspection of the project area to determine if compliance with the terms and conditions of this authorization has been completed. The operator shall perform at their own expense any required modifications or additional reclamation work needed to comply with the terms of this authorization as conclusively determined by the Authorized Officer.
6. All required permits must be obtained and filed with the BLM prior to the start of operations.
7. No hazardous materials shall be stored or used on site without the specific approval of the BLM.

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA

8. All pits/trenches and drill holes shall be constructed in such a way as to avoid trapping or injury to livestock or burros.
9. The operator shall be responsible for informing all vehicle operators about the presence of livestock and burros in the area and take steps to avoid vehicle collision.
10. All trash and food items shall be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and removed on a regular basis.
11. All project related vehicular traffic shall be confined to existing roads and only those new roads authorized by this action. No cross-country travel is authorized.
12. Any desert tortoises observed during any phase of the project shall be left to move out of the way on their own. Handling of desert tortoises is NOT permitted!
13. To assure observation and avoidance of desert tortoises in roadways, the operator shall travel no more than 20 mph on all roads not maintained by the county during desert tortoise active season (mid-March to mid-November).
14. Workers shall inspect for desert tortoises under vehicles and equipment prior to moving it. If a desert tortoise is present, the worker shall carefully move the vehicle or equipment only when necessary or shall wait for the desert tortoise to move out from under the vehicle or equipment.
15. The operator shall notify the BLM Needles Field Office upon locating any dead or injured desert tortoise at the project site or along any access road. Any injured desert tortoise shall be transported to a veterinarian for treatment at the expense of the operator.
16. BLM biologists have the authority to halt any action that could cause harm to a desert tortoise. Should BLM personnel identify potential harm to a desert tortoise during any phase of the project, all project work identified as a source of potential harm to the tortoise shall be required to cease until a suitable course of action has been identified, including, as needed, consultation pursuant to Section 7(a)(2) of the Endangered Species Act of 1973, as amended.
17. The operator shall notify the BLM Needles Field Office prior to any road improvements (widening, grading, etc.), construction (turn-arounds, pull-outs, etc.), and/or maintenance of the access roads. The operator shall specify exactly where the improvements, construction, and/or maintenance would take place.

18. The operator shall meet all Federal and State Air Quality standards and regulations, and be in possession of all necessary permits. These permits shall be on file with the BLM and the operator is required to supply the BLM with copies of these permits before operations begin.
19. Operations which generate fugitive dust emissions shall be curtailed when wind speeds exceed 30 MPH.
20. Additional mitigation measures shall be implemented if fugitive dust emissions exceed the Mojave Desert Air Quality Management District (MDAQMD) standards or California Health and Safety Code Section 41700 and 41701.
21. MDAQMD permits shall be kept current.
22. Contamination of soils with hydraulic fluids, oils or other lubricants is not permitted. A tarpaulin, plastic, or other protective device is required to prevent fluid/soil contact. Contaminated soils must be handled and disposed of in accordance with Environmental Protection Agency regulations for hazardous wastes. The operator shall be liable for all costs associated with remediation of hazardous wastes.
23. Reclamation shall include the following:
  - a. All cacti and yucca shall be saved for transplanting purposes. These plants shall be protected, stored in 5-gallon containers, watered and placed in a shaded environment during the period of storage. The aforementioned plants shall be replanted according to the guidelines supplied by the BLM botanist.
  - b. The pit and new authorized access roads shall be ripped and native seed shall be spread over all disturbed areas. Planting of native seed shall be done in accordance with guidelines to be supplied by the BLM botanist upon prior notification by the operator to BLM when reclamation is to be initiated.
  - c. All pit slopes shall be reduced not to exceed 1:1 and all waste rock stockpiles shall be spread within the pit area.
  - d. The operator shall notify the Authorized Officer when reclamation is completed to allow for inspection of reclamation activities.
24. The operator(s) shall immediately cease operations upon encountering any cultural resources (prehistoric/historic sites or objects) and/or

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA



paleontological resources (fossils) during permitted operations, bring the resources to the attention of the Authorized Officer and maintain the integrity of such resources pending subsequent investigation.

25. Actions other than those explicitly approved by the Bureau of Land Management, which result in impacts upon archaeological or historical resources, shall be subject to the provisions of the Archaeological Resources Protection Act of 1979, as amended, and the Federal Land Policy and Management Act of 1976. These statutes protect cultural resources for the benefit of all Americans. As property of the United States, no person may, without authorization, excavate, remove, damage, or otherwise alter or deface any historic or prehistoric site, artifact or object of antiquity located on public lands.
26. The operator shall prepare a reclamation cost estimate in accordance with regulations at 43 CFR 3809.500 for review and approval by the Authorized Officer. An irrevocable financial assurance instrument in an amount to be determined and approved by the Authorized Officer shall be delivered to BLM, Needles Field Office prior to initiation of mining operations. This bond shall be made payable to the following agencies, as shown: Bureau of Land Management, Needles Field Office, or County of San Bernardino, or State Department of Conservation. Return or release of the bond shall be contingent upon completion of satisfactory reclamation as determined by the Authorized Officer.
27. Prior to widening any portion of existing roads to allow safe passage of equipment and vehicles, the operator shall notify BLM and provide the location of the proposed widening. Road widening shall be limited to Mesquite Dry Lake Playa unless the operator can demonstrate a need for other locations based upon safety considerations. No road widening is allowed without the specific written approval of the Authorized Officer.
28. Portable toilets shall be provided in appropriate numbers for the numbers of employees on site in accordance with County Health Codes and shall be regularly serviced and dumped. Toilets will be adequately anchored down to prevent from being tipped over and contents spilled on soil surface.
29. Fuel, oil, antifreeze, and all other fluids, which fall under hazardous and special materials and the proposed action, would produce solid, hazardous, and special wastes in the event of an accident, and/or are required to have a Material Safety Data Sheet available at the location of use, shall be properly/legally stored. Sealed Containments shall be installed under all generators, and tanks, and state/county permits/licenses required for tanks and other storage shall be secured prior to use on site.

JEDCO Mesquite Lake Gypsum Mine  
DOI-BLM-CA-D090-2011-0029-EA



30. The proponent and associated project personnel shall comply with all Federal, State and County regulations and codes, including but not limited to the Occupational Safety and Health Administration and Environmental Protection Agency regulations. Requirements include provisions of the Resources Conservation and Recovery Act, Comprehensive Response, Compensation, and Liability Act, and Clean Water Act.
31. The Dalton trucking General Field Projects Health and Safety Plan (HASP) shall be maintained on the project site and followed by all employees at all times that work is in progress, in accordance with 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65.
32. The HASP shall include a separate site-specific Emergency Response Plan (ERP) section of the HASP for the project in accordance with 29 CFR 1910.120(b)(4)(ii)(H) and 1926.65(b)(4)(ii)(H). The ERP shall be developed and implemented prior to beginning site operations
33. A copy of the HASP (including the ERP) shall be submitted to the Needles Field Office and approved by the Authorized Officer prior to beginning site operations.
34. Prior to mobilization on the site, all equipment should be inspected to be sure it is operating correctly and free of leaks. Equipment should be inspected daily to ensure that there are no discharges. Equipment maintenance activities should not be conducted on the site. Appropriate spill containment material should be kept on site. All fuels and other materials used should be contained within the equipment or stored in appropriate containers. All materials should be removed from the site upon completion of construction activities.
35. The operators should develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities. A copy of this plan should be provided to the Authorized Officer prior to initiating the proposed activity.
36. A copy of the list of project related OSHA hazardous chemicals shall be provided to the Needles Field Office.
37. Material Safety Data Sheets for fuel, oil, antifreeze, and all other chemicals characterized as hazardous by the OSHA shall be made available at the location of use and shall be properly/legally stored. Sealed containments shall be

installed under all generators, and tanks, and state and county permits required for tanks and other storage shall be secured prior to use on site.

38. Fuels, oils, and all hazardous materials shall be transported and stored on site in U.S. Department of Transportation and OSHA approved containers, within a containment area with an impermeable lining. A spill response/removal kit for fuels/oils, consisting at a minimum of equipment and supplies to address the quantities of materials on site, shall be on site for containment of spills and legal removal of contaminated soils.
39. No regulated hazardous, radioactive, "special" or "universal" wastes shall be brought onto the site without the prior approval of the Authorized Officer.
40. If any serious injury or death occurs in connection with this operation, the operator shall notify the BLM immediately and follow the initial report within 24 hours after the incident/accident with written report detailing the incident and resulting actions. The BLM shall supply the necessary forms for reporting the incident and copies of ambulance and emergency room reports must also be submitted to the BLM.
41. All salt cedar trees in the project vicinity which have not been removed shall be removed. GPS locations and approximate heights of these individuals have been previously provided by the Needles Field Office invasive species coordinator. Removal of these trees shall be done during the winter of 2011-2012 between October and February when the salt cedar is not in seed. Removal shall be done by mechanical means. This shall involve a backhoe or similar device used to pull the entire tree including the root system from the ground. Trees shall be stacked in a location away from any areas with standing water. If any additional trees appear in the future they shall also be removed.
43. Before entering the site, all vehicles shall be inspected for any invasive plant materials and seeds. Any vehicles containing mud or vegetative materials shall be cleaned. This shall be done offsite using a wash station, compressed air station or a commercial car wash that shall wash the under carriage of the vehicle. Possible locations for washing of the vehicles include Primm, Jean or Las Vegas, NV. The method used to remove invasive materials from the vehicle shall be reviewed by the BLM invasive weed coordinator prior to approval.
44. Before entering the site all clothing and footwear shall be checked and any plant material, especially stickers, and burs that may contain invasive non-native plant seeds shall be removed and disposed of in a trash receptacle.

45. There shall be a briefing on the importance of preventing the spread of noxious weeds in areas that are not currently infested, and controlling the proliferation of weeds already present. Impacts of noxious weeds on native vegetation, wildlife, and fire activity shall be discussed including an explanation of how invasive grasses provide a fine fuel understory which can spread fire from shrub to shrub and how this has historically been absent in the native desert ecosystem.
46. The operator shall install two cattle guards to replace existing gates at the locations shown on the attached map within 60 days of the date of this authorization. The operator shall be responsible for maintenance and repair of the cattle guards for the life of the mining operation.

**Advisory:**

1. An approved California State Mining and Reclamation Act permit is required prior to initiating operations.
2. The operator will be responsible for any damage or loss of livestock or herding fees as a result of this action.
3. This authorization applies only to public lands and does not infer any authorization for any use of private lands. The operator must reach agreement with private land owners for any access across or other use of private lands.
4. Another operation has BLM authorization to conduct operations in the immediate area. All operations must be conducted in a safe and courteous manner to avoid conflict or interference with all other authorized uses of the public lands.

Mesquite Lake Gypsum Mine

Dalton Trucking, Inc  
and

JEDCO Gypsum Company, Inc.

Access Route with Turnouts

Mill Site  
(40 Ac)

Proposed turnout on private land is  
not authorized by BLM. Any road  
construction or maintenance must  
conform to county road requirements.

Route thru corral  
is not authorized  
for use











Removal of three  
mesquite trees is  
authorized

Mine Area  
(160 Ac)

#### Land Ownership

#### Land Status

#### AGENCY

-  Bureau of Land Management
-  US Forest Service
-  National Park Service
-  Bureau of Reclamation
-  US Fish and Wildlife Service
-  Military
-  Other Federal
-  State
-  County/State/Regional
-  Private/Other

N 1:24,000